# CALIFORNIA STATE UNIVERSITY LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION CSU-LSAMP

Broadening Participation in STEM Biographies of 200 CSU-LSAMP Students



CSU-LSAMP is supported by a grant from the National Science Foundation (HRD-0802628) and funding from the Office of the Chancellor of the California State University. Any opinions, findings and conclusions or recommendations expressed in these materials are those of the authors and do not necessarily reflect the views of the National Science foundation or the CSU Chancellor's Office.

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Coordinators of campus-based programs CSU-LSAMP Students and Alumni

### Published by California State University Louis Stokes Alliance for Minority Participation $\sim$ September 2011 $\sim$

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## CALIFORNIA STATE UNIVERSITY LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION

#### BIOGRAPHIES OF 200 CSU-LSAMP STUDENTS

#### ABOUT CSU-LSAMP

In 1993, the NSF's "Alliance for Minority Participation" program provided the California State University (CSU) the impetus to bring its campuses together to develop a comprehensive and unified system-wide effort to increase participation of students from underrepresented minority groups in Science, Technology, Engineering and Mathematics. Since its inception, this effort, now known as the California State University-Louis Stokes Alliance for Minority Participation (CSU-LSAMP), has been funded by grants from the NSF and has received on-going support from the CSU Office of the Chancellor and participating campuses.

The current Alliance includes all 22 of the comprehensive and polytechnic universities of the CSU. The only CSU that is not included is The California Maritime Academy, a unique and specialized campus of the CSU, which offers a limited number of bachelor's degrees. A list of participating campuses and campus contact information is provided on page 5. California State University, Sacramento currently serves as the lead institution for CSU-LSAMP and University Enterprises, Inc., an auxiliary of the University, is the grantee for NSF awards supporting the project. The project's leadership team at California State University, Sacramento is identified below, followed by contact information for the State-wide Office.

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#### ABOUT THIS PUBLICATION

Since Summer of 1994, the faculty and staff of the California State University Louis Stokes Alliance for Minority Participation (CSU-LSAMP) have had the privilege of traveling with over 19,000 students in their higher education journeys in STEM fields. These students bring a wealth of intellectual talent, technical skills, and a diversity of perspectives to the STEM workforce. We have witnessed their personal growth and their development as scientists, and we are so very proud of their accomplishments. Indeed, in light of the educational, social and economic barriers that many of our students have had to overcome, their achievements are awe inspiring.

In this publication, we present biographies of 200 of our students to illustrate how the NSF's support of the CSU's efforts to develop the talent of its richly diverse student population has contributed to meeting the nation's need for a broadly inclusive STEM workforce to advance the progress of science.

Biographies and photos were provided by the Coordinators of the 22 CSU campuses participating in CSU-LSAMP. While it is certainly the case that the accomplishments of the students selected for inclusion in this publication are highly impressive, it is important to note that this publication is not intended to serve as a "Top 200" list. Rather, an effort was made to include students from a wide range of disciplines and students at different levels of their educational and professional development. We have also arranged the biographies in a manner that reflects this diversity, rather than arranging them by campus. However, an index of students by campus is provided on pages 7-9. With regard to campus listings, it is important to note that differences in the numbers of students included from each of campuses are primarily a reflection of differences in the size of campus programs and the longevity of the campus's participation in CSU-LSAMP.

We hope that you will enjoy reading about our students as much as we have enjoyed writing about them.

Respectfully,

Juanita Barrena, Ph.D. Lead Project Director, CSU-LSAMP

# THE CALIFORNIA STATE UNIVERSITY



#### CSU-LSAMP

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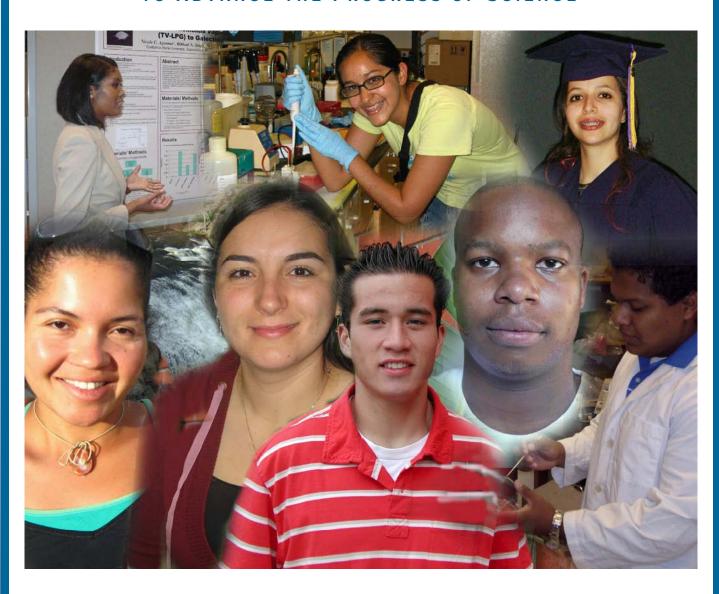
# CALIFORNIA STATE UNIVERSITY LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION

#### BROADENING PARTICIPATION IN STEM

PROMOTING DIVERSITY AND INCLUSIVENESS

OF PEOPLE AND THEIR IDEAS

TO ADVANCE THE PROGRESS OF SCIENCE



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#### **GABRIEL RODRIGUEZ**

California State University, Monterey Bay B.S. Earth Systems Science and Policy, 2008 University of Santa Barbara Ph.D. Student, Marine Ecology

**Gabriel Rodriguez** transferred to CSU Monterey Bay in 2005 as an Earth Systems Science and Policy (now Environmental Science, Technology & Policy) major. While a student at CSU Monterey Bay, Gabe engaged in a number of undergraduate research experiences including a Multicultural Initiative In Marine Science: Undergraduate Participation (MIMSUP) program to study marine science at Shannon Point Marine Center in Washington State for two academic quarters. Gabe also received the NOAA Hollings Scholar award and was a CSU-LSAMP Student Scholar. Gabe went on to receive a Graduate Research Fellowship from the National Science Foundation to pursue his Ph.D. at the University of California, Santa Barbara in the Department of Ecology, Evolution and Marine Biology.

#### JESSIE BENAVIDES

California State University, Northridge, B.S. Mathematics, 2007 California State University, Northridge, M.S. Mathematics, 2011 University of California, Riverside, Ph.D. Student, Mathematics

Jesse Benavides entered CSU Northridge in 2004, majoring in Mathematics. During his undergraduate studies he participated in research projects and was a Supplemental Instructor for CSU Northridge math classes through the Learning Resource Center. Jesse graduated with a B.S. in Mathematics in 2009 and was admitted to the CSU Northridge Master's program in Mathematics. Soon after his admittance, he was awarded the CSU-LSAMP Bridges to the Doctorate Fellowship at CSU Northridge. Jesse's graduate research focus was in geometric and algebraic topology and he received his Master's in Mathematics in May 2011. An AGEP Diversity Award provided Jesse with funds to conduct research during the summer, before entering the UC Riverside Ph.D. program in Mathematics in Fall 2011, where he is supported by the Dean's Distinguished Fellowship.

#### WILLIAM WHALEN

California State University, Fresno, B.S. Biology, 2010 California State University, Fresno, M.S. Student, Biology

As an undergraduate student at Fresno State, **William Whalen** played a dynamic role in CSU-LSAMP as a Facilitator for AEW's in biology and served as a Peer Mentor. He also participated in a CSU-LSAMP supported Research Internship. William is currently an M.S. student in Biology at CSU Fresno, engaged in research on patterns of non-muscle myosin II (NMII) in metastatic breast cancer cells.



#### VANESSA LIZ GONZALEZ

University of California, Los Angeles, B.S. Marine Biology, 2005 California State University, Los Angeles, M.S. Biology, 2007 Harvard University, Ph.D. Student, Evolutionary Biology



Vanessa Gonzalez began her academic career studying Marine Biology at UCLA, where she received a Smithsonian minority undergraduate research grant to study mechanisms of reproductive isolation in sea urchins at the Smithsonian Tropical Research Institute in Panama. She was accepted into the M.S. program in Biology and CSU-LSAMP Bridge to the Doctorate Cohort III at CSULA, and received another research grant to study the evolution of bioluminescence in members of the Cypridinidae (*Myodocopida*) at the Smithsonian Tropical Research Institute in Panama. After completing her Master's in 2007, she entered the doctoral program at Harvard University, funded by the Graduate School of Arts and Sciences Graduate Student Fellowship. She is currently a doctoral candidate in the Department of Organismic and Evolutionary Biology, and is completing her thesis research on the evolution of the *Bivalvia* (Mollusca), funded by the NSF-sponsored Assembling the Tree of Life Grant: *Bivalvia* Project.



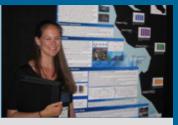
#### SKY C. KING

California State Polytechnic University, Pomona, B.S. Physics 2010 Duke University, Ph.D. Student, Atomic, Molecular, and Optical Physics

**Sky C. King** graduated with a B.S. in Physics in 2010 from Cal Poly Pomona. He entered the Atomic, Molecular, and Optical Physics Ph.D. program at Duke University in Fall 2010. While an undergraduate student, Sky participated in a variety of CSU-LSAMP activities including AEWs, undergraduate research, graduate school preparation activities, and preparation for the GRE.

#### **ALISON JONES**

California State University, Monterey Bay, B.S. Environmental Science, Technology & Policy, 2010 State University of New York Ph.D. Student, Marine and Atmospheric Sciences



Alison Jones transferred to CSU Monterey Bay in 2004 as an Environmental Science, Technology & Policy major, committed to finding a field of study that sustained her passion and capitalized on her strengths. That commitment led her to a wide range of experiences including a research cruise out of Woods Hole Oceanographic Institution, tutoring a National Ocean Science Bowl team, and a marine intertidal research project with Dr. Peter Raimondi at the University of California, Santa Cruz. Alison investigated spatial and temporal differences in growth rates of the California mussel (*Mytilus californianus*) at four central California sites. This work led to a research poster at the 2008 Annual Western Society of Naturalists (WSN) meeting and a research talk at WSN in 2009. Alison ultimately hopes to connect her research to management of the marine coastal environment. Alison is in the second year of her Ph.D. studies at the State University of New York, Stony Brook, where she is working with Dr. Glenn Lopez in the Marine and Atmospheric Sciences Program.

#### ANDRO RIOS

California State University, Sacramento, B.S. Chemistry, 2006 University of California, San Diego M.S. Chemistry, 2008 University California, San Diego Ph.D. Student, Organic Chemistry



**Andro Rios** is currently a sixth year graduate student in the Ph.D. program in Organic Chemistry at the University of California, San Diego, where his research involves synthesis of new fluorescent nucleosides. As an undergraduate at CSU Sacramento, Andro demonstrated strong interests in both research and teaching. In addition to engaging in research, he served as a facilitator for AEW's for organic chemistry. These dual interests in research and teaching have flourished at UCSD, where, as a Socrates Fellow, funded by NSF's Graduate STEM Fellows in K-12 Education project, Andro was engaged in a year-long curriculum development project titled, "Life Is Organic Chemistry," which produced organic chemistry activity modules for use in high school biology classes.

#### MARTHA SUSANA TRUJILLO

California State University, Long Beach, B.S. Biochemistry; B.A. Chemistry, 2009 California State University, Long Beach, M.S. Chemical Engineering, 2010

Martha Trujillo earned her B.S. in Biochemistry and B.A. in Chemistry from CSU Long Beach in 2009. She continued her studies at CSU Long Beach, earning a Master's in Chemical Engineering in 2010. Her research topic under Dr. Young-Seok Shon of the Chemistry department was the synthesis of tetraoctylammonium-protected gold nanoparticles with improved stability. She has been a member of the Society of Women Engineers, the American Institute of Chemical Engineers, and the Phi Theta Kappa Honor Society. Martha's goal is to attend medical school at the University of British Columbia with an emphasis in Neuro-Oncology, where she hopes to integrate her graduate education in chemical engineering to formulate medicine to treat lesions.



#### **TUNDE ADESHOLA ADEFIOYE**

San Francisco State University
B.S. Cell & Molecular Biology 2011
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Katholieke University, Ph.D. Student, Department of Bioinformatics,

**Tunde Adeshola Adefioye** completed a B.S. in Cell & Molecular Biology at San Francisco State University and then conducted M.S. research in Bioinformatics while supported by the CSU-LSAMP Bridge to the Doctorate Fellowship at SFSU. He completed his M.S. in Bioinformatics at the University of Leeds (UK) and is currently enrolled as a Ph.D. candidate at the Katholieke University in Belgium. Adeshola is expected to complete the Ph.D. program in Bioinformatics in Spring 2012.



#### ANTONIO TORIBIO

California State University, Fresno,
B.S. Biology, 2008
Texas A&M University, M.S. Biomedical Science, 2010
Texas A&M Health Science Center, M.D. Student



Antonio (Tony) Toribio received an M.S. in Biomedical Science with a focus on neuroscience from Texas A&M University in 2010. His research involved neuro-regeneration in established pathways. As an undergraduate at CSU Fresno, Tony began and developed his interest in research by working in a microbiology research lab under the guidance of Dr. Alice Wright. He presented his research at local and national conferences including the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Conference where he won an award for outstanding poster presentation. As a Microbiology Undergraduate Research Fellow in 2007, Tony was afforded the opportunity to present his research at the American Society for Microbiology Annual conference in Boston, MA. While at CSU Fresno, Tony served as a Peer Mentor for CSU-LSAMP and participated in a CSU-LSAMP Research Internship and CSU-LSAMP Scholars programs. Tony began his medical studies at Texas A&M Health Science Center in Fall 2011 and plans to concentrate on the latest research in neuroscience.

#### **ALYSSA JIMENEZ**

San Diego State University,
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Ph.D. Student, Microbiology



#### KARINA KANGAS

San Diego State University, B.S. Chemistry, 2011 University of California, San Diego, Ph.D. Student, Chemistry

Alyssa Jimenez conducted research in biology at San Diego State University under the guidance of Dr. Kelly Doran. She presented her work "Examining the Role of Serine - Rich Repeat Glycoproteins in Group B Streptococcus Vaginal Niche Establishment" at the American Society for Microbiology National Meeting in New Orleans, in May 2011. Alyssa was accepted into five Ph.D. programs for Fall 2011 and accepted an offer from UT Southwestern Medical Center at Dallas.

Karina Kangas has been deeply involved in chemistry research since joining CSU-LSAMP at San Diego State. Karina's first research experience, funded by CSU-LSAMP, also led to her first publication. She is first author on another manuscript summarizing her most recent electrochemistry research that will be submitted to *Organic Letters* and has co-authored two other publications in the *Journal of Physical Chemistry* and the *Journal of Medicinal Chemistry*. Karina was selected as the San Diego State University College of Sciences outstanding graduating student. This summer, Karina began working on her Ph.D. in Chemistry at UC San Diego and hopes to become a Professor of Chemistry.

#### **ALISON SCOTT**

California State University, Los Angeles, B.S. Biology; 2010 University of Wisconsin, Ph.D. Student, Botany



Alison Scott is currently a Ph.D. student in the Botany program at the University of Wisconsin, Madison. Her research focuses on the evolutionary history of coast redwood trees (*Sequoia sempervirens*). She spent the summer of 2011 doing field work in the redwood forests of northern California. She started a chapter of SACNAS at the University of Wisconsin and is currently the chapter president. She is a recipient of the National Science Foundation Graduate Research Fellowship (2011-2014) and has a two-year fellowship from the University of Wisconsin. While a student at CSU Los Angeles, her honor's thesis focused on correlates of clonal reproduction in natural populations of *Thuja plicata*. In 2008, Allison was a recipient of a research fellowship through the LSAMP International REU program funded by NSF. She conducted research at Universidad de São Paulo, Brazil with Dr. Hugo A. Armelin, studying FGF2-triggered stress responses in malignant cells.

#### **ROCIO LINARES OWENS**

California State University, Sacramento B.A. Mathematics, 2003 California State University, Sacramento, M.A. Mathematics, 2009

Rocio Owens entered CSU Sacramento through the CSU-LSAMP Math Summer Bridge program. Her outstanding performance in the program led to her selection as a CSU-LSAMP math workshop Facilitator, where she demonstrated extraordinary teaching skills. After graduating with a B.A. in Mathematics in 2003, she was recruited to teach precalculus and calculus in the Learning Skills Center at UC Davis and to teach in the Student Transitional Education Program. During this time she was also a leader of professional development institutes for K-12 teachers with the CSU Sacramento Mathematics Project. She returned to CSU Sacramento and completed her M.A. in Mathematics in 2009, and began a career of community college teaching. She now teaches at Washtenaw Community College in Ann Arbor, Michigan.



#### CHAD GRIFFITH

Sonoma State University, B.S. Mathematics, 2008
California State University, Northridge,
M.S. Mathematics, 2011
University of California, Santa Barbara, Ph.D. Student, Statistics

**Chad Griffith** became involved with CSU-LSAMP at Sonoma State University and graduated with a B.S. in Mathematics in 2008. He was accepted into the CSU-LSAMP Bridge to the Doctorate Cohort VII at California State University Northridge and completed his Master's degree in August 2011. In the Fall of 2011 he began pursuit of a Ph.D. in Statistics at the University of California, Santa Barbara where he was awarded a teaching assistantship.



#### GE 'YANNI POLK

California State Polytechnic University, Pomona, B.S. Biotechnology, 2009 California Polytechnic State University, San Luis Obispo, M.S. Student, Chemistry

**Ge'Yanni Polk**, while a Biotechnology major at Cal Poly Pomona, had a variety of different research experiences that allowed her to travel from Yale to Alaska. She worked on seed germination and seedling responses to available light and water in Black Walnuts and, with CSU-LSAMP funding, measured gas exchange & uptake of CO<sub>2</sub>. Ge'Yanni also served as a facilitator for CSU-LSAMP AEWs. She is now pursuing her interest in polymers and coatings chemistry by working on her Master's research at Cal Poly San Luis Obispo. Ge'Yanni hopes to go on to earn a Ph.D. in the future.

#### SAMEH HELMY

California State University, Channel Islands, B.S. Chemistry, 2009 University of California, Santa Barbara, Ph.D. Student, Chemistry

Sameh Helmy enrolled at CSU Channel Islands in Fall 2008, having taken classes at three other institutions. He joined CI's new CSU-LSAMP program the same semester. In May 2009, Sameh graduated with a B.S. in Chemistry with departmental honors. Sameh carried out research under the guidance of Dr. Phil Hampton where he successfully identified and adapted patented methods to synthesize and purify several compounds and to determine their levels of beta-secretase binding activity. Some of this work led to a joint paper with Dr. Hampton that has been submitted to the *Journal of Medicinal Chemistry*. Sameh provided great service to the Chemistry department and its students by founding a volunteer chemistry tutoring program and working with it through his final undergraduate year. Sameh is now a Ph.D. student in Chemistry at the University of California, Santa Barbara.

#### DANIEL GUTIERREZ

San Jose State University Undergraduate Student, Biological Sciences

Daniel Gutierrez started out at San Jose State as an engineering major but soon realized that he enjoyed chemistry and biology more. He participated in San Jose State's RUMBA summer research program (NSF REU) working on treating SK-Mel-28 cells with a recombinant protein in order to determine the extent of cellular proliferation inhibition. He presented his work at the national SACNAS conference in 2010 and received an award. His current research involves treating various cancer cell lines with multiple recombinant proteins (disintegrins) derived from the nucleic acid sequence of *Crotalus scutulatus* and utilizing *E. coli* bacteria to express the proteins. During the summer of 2010 he conducted research at the University of Wisconsin. Daniel will be applying for admission into graduate programs for Fall 2012.



#### MICHAEL SANTANA

California State University, San Marcos,
B.S. Mathematics, 2009
California State University, San Marcos,
M.S. Mathematics, 2011
University of Illinois at Urbana-Champaign,
Ph.D. Student, Mathematics



**Michael Santana** began his mathematics career at CSU San Marcos. He was a recipient of the 2008-09 CSU-LSAMP Scholar award. Michael worked with Dr. K. Brooks Reid investigating several structural properties of irreflexive, asymmetric, complete relations on non-empty sets; and in March 2009, presented his work at the 40<sup>th</sup> Southeastern International Conference on Combinatorics, Graph Theory and Computing. He completed his B.S. in Spring 2009 and joined the Master's program at CSU San Marcos in Fall 2009. He was awarded the Research Initiative for Scientific Enhancement Graduate Fellowship in 2009 and the California Pre-Doctoral Scholarship in 2010. In 2011, Michael received Honorable Mention for the NSF Graduate Research Fellowship. Michael is first author on two manuscripts submitted for publication. He completed his M.S. in Spring 2011 and entered the doctoral program in Mathematics at the University of Illinois at Urbana-Champaign in Fall 2011.

#### **ROBERT HAYNES**

California State University, San Bernardino, B.S. Chemistry, 2011 University of Utah, Ph.D. Student, Chemistry

**Robert Haynes** earned a B.S. in Chemistry from CSU San Bernardino in Spring 2011. As an undergraduate, he joined the CSU-LSAMP program and got involved in research with several STEM faculty. Robert worked with Dr. Sue Lederer in the Physics Department on a project funded by NASA, with Dr. Smith in the Chemistry Department on an analytic organic chemistry project, and with a group of faculty in the Chemistry and Physics departments on a synthetic organic chemistry project. Robert entered the doctoral program at the University of Utah in Fall 2011.

#### **JOSHUA CASARA**

California State University, Stanislaus Undergraduate Student, Physics & Chemistry



**Joshua Casara** is currently a senior at CSU Stanislaus, where he is a dual major in Physics and Chemistry. He is engaged as a CSU-LSAMP research intern with Dr. Lu Rose Zhang in the physics department working on a superconductivity project and with Dr. Nyu Stessman in the chemistry department working on developing a process for synthesizing Superedamine A. Joshua attend the American Physical Society Meeting in April 2001 in Anaheim, California. He and his colleagues presented a poster entitled "Investigation of Anisotropic Magnetic Properties in (BIPB)<sub>2</sub>SR<sub>2</sub>CACU<sub>2</sub>O<sub>8</sub> Superconducting Crystals". Joshua's goal is to become a Ph. D. researcher and eventually join the professoriate.

#### STEPHANIE MENDES

California State University, Chico, B.S. Chemistry, 2009 University of California, Santa Barbara Ph.D. Student, Marine Geochemistry



Stephanie Mendes was a CSU-LSAMP Student Scholar in 2007-2008 and spent a semester studying in Italy in 2008. She graduated with a B.S. in Professional Chemistry in 2009. Stephanie began her graduate studies as a CAMP-LSAMP Bridge to the Doctorate Fellow, studying Marine Geochemistry at the University of California, Santa Barbara. She coauthored two papers in 2011 on her work on the Gulf of Mexico Oil Spill and has made presentations at eight conferences. She has participated in three research cruises: *PLUMES 2 Cruise* monitoring dissolved hydrocarbon plumes formed as a result of the Deepwater Horizon Oil Spill, *INSPIRE 2010 Cruise* locating and measuring methane seep areas off the Chilean Coast, and *SEEPS 2009 Cruise* assessing the efficacy of the aerobic methanotrophic biofilter in methane hydrate environments. Stephanie has just begun a 3-year National Research Council Ford Foundation Pre-Doctoral Fellowship at UC Santa Barbara.

#### SUZETTE PUENTE

California State University, Fullerton, B.S. Mathematics, 2010 University of California, Berkeley, M.A./Ph.D. Student, Mathematics

**Suzette Puente** is currently a graduate student in the six year M.A./Ph.D. program in Statistics at the University of California, Berkeley where she has a fully funded scholarship. While an undergraduate at California State University, Fullerton, Suzette conducted CSU-LSAMP-sponsored research with Dr. Sam Behseta of the Dept. of Mathematics analyzing data in an effort to develop statistical techniques that can be used to compare the firing patterns of neurons. Suzette published this work in 2010 in the College research journal *Dimensions*.



#### ANNE VALLE

California State University, Dominguez Hills, B.S. Biology, 2000 University of California, San Diego, Ph.D. Biomedical Sciences, 2008

Anne Valle graduated *summa cum laude* from CSU Dominguez Hills in June 2000. She won the Alumni Association's Outstanding Achievement Award that year, as well as winning first place in the Biological and Agricultural Science category at the CSU Research Competition. She was accepted into the Biomedical Sciences Graduate Program at UC San Diego, in the Dept. of Pharmacology. Her research, under the supervision of Professor Palmer Taylor was in the pharmacogenomic study of the cholinesterases. She received her Ph.D. in Biomedical Sciences from UC San Diego in 2008. During her doctoral study, she was in the SREB-AGEP Doctoral Scholars Program, was a Cota Robles Fellow in the NIH Scholars Program (2001-2003), and was awarded fellowships from the Genetics Training Grant and the Pharmacology Training Grant (2003-2006), and an NIH Minority Supplemental Grant Fellowship (2006-2008). She also won the Pharmacology Dissertation Award (2008) for her research. She is now a tenure-track Assistant Professor in the Department of Life Science at El Camino College.

#### AMEER NAPHTALI THOMPSON

California State University, Sacramento, B.S. Biological Sciences, 2005 Cornell University, Ph.D. Physiology, Biophysics & Systems Biology, 2011

Ameer Thompson started his undergraduate studies at CSU Sacramento as a Business major, but eventually discovered that the world of science was the perfect niche for his intellectual interests, creativity, and personality. Once he became engaged in scientific research, it was clear that he was on the path to graduate study and a productive career in science research. Ameer participated in CSU-LSAMP graduate school preparation activities and was also a Ronald McNair Scholar. Ameer graduated from CSU Sacramento with a B.S. in Biological Sciences in 2005. He went on to the graduate program in Physiology, Biophysics and Systems Biology at Cornell University, where he earned his Ph.D. in 2011 and is currently a Postdoctoral Fellow. His research interest is the area of potassium channel regulation.



#### BELLANIRA HERRERA

California State University, Fullerton, B.S., Biological Sciences, 2000 University of California, Irvine, Ph.D. Microbiology & Molecular Genetics, 2007



**Bellanira Herrera** entered CSU-LSAMP when she participated in the CSU Fullerton LSAMP Summer Bridge workshop in 1996. She did undergraduate research in chemistry with Dr. Christina Goode and began a Master's degree before transferring to the University of California, Irvine in 2001 where she was awarded an AGEP Fellowship. She completed her Ph.D. in Microbiology and Molecular Genetics in 2007. Her research focused on the modulation of HIV-1 Vif-Human APOBEC3 Interactions. Dr. Herrera is currently a Microbiologist with the Los Angeles County Sanitation District.

#### **EDWARD STEVEN JIMENEZ**

San Diego State University, B.S. Mathematics, 2004 University of Arizona, Ph.D. Applied Mathematics, 2010

Edward "Steven" Jimenez earned his Ph.D. in Applied Mathematics from the University of Arizona in 2010. His dissertation was titled "Simulation and Estimation of Organ Uptake in a Digital Mouse Phantom". He is currently a computer software developer at Sandia National Laboratories in Albuquerque, New Mexico. Steven participated in many research programs as a student including the CSU-LSAMP, McNair and MARC programs and a student internship at Sandia National Laboratories. Research at San Diego State included simulation-based optimization of innovative petroleum distillation columns and his research at Sandia included work in industrial computed tomography work. As an undergraduate, Steven enjoyed teaching and was the Teaching Assistant every summer for the CSU-LSAMP Summer Pathways Through Calculus program. Steven was selected as the Outstanding Graduating Student for the Math Department and for the entire College of Sciences. Steven's ultimate goal is to return to SDSU as a researcher and math professor.





## CRYSTAL CASTELLANOS California State University, Fullerton, Undergraduate Student, Geology

**Crystal Castellanos** worked with Dr. Diane Clements-Knott in the Department of Geology at CSU Fullerton, collecting data on unusual clay minerals using the electron microprobe at the California Institute of Technology. This research was incorporated into her senior thesis, which included a lengthy appendix compiling all mineral and whole rock chemical data. Crystal presented her work at the Cordilleran section meeting of the Geological Society of America, May 2009, in Anaheim CA. Crystal hopes to go to graduate school and her involvement in CSU-LSAMP has led to an increase in interest about research among Geology majors. Crystal was a CSU-LSAMP Student Scholar in 2010-2011.

#### JENNA BERNARD

Sonoma State University, B.S. Chemistry, 2011 UC Berkeley, Ph.D. Student, Chemistry

**Jenna Bernard** graduated from Sonoma State University in the Spring of 2011 with a B.S. in Chemistry. She was accepted into graduate programs in Chemistry at a number of schools including Stanford, UC Berkeley, UC Davis, and UC Santa Cruz. She began her pursuit of a Ph.D. in Chemistry at UC Berkeley in the Fall of 2011.

#### SYLVIA BONILLA

California State University, Dominguez Hills, B.S. Biology, 2008 Purdue University, Ph.D. Student, Biological Sciences

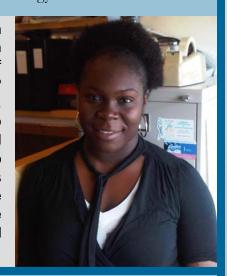
As a CSU-LSAMP undergraduate at CSU Dominguez Hills, **Sylvia Bonilla** conducted research on morphological changes that occur in the actin skeleton of light- and dark-adapted retina. She participated in summer research at Oxford University, UK in the lab of Dr. Kieran Clarke, studying the influence of erythropoietin treatment and insulin deficiency on rodent heart failure. Sylvia is now a fourth year Ph.D. student in the Department of Biological Sciences at Purdue University, studying the gene regulatory networks involved in zebrafish eye development.



#### Patricia A. Castillo

San Diego State University, B.S. Biology, 2004 California State University, Los Angeles, M.S. Biology, 2007 University of California, Davis, Ph.D. Student, Immunology

Patricia Castillo is a fourth year graduate student in the Ph.D. program in Immunology at the University of California, Davis. Her research involves understanding the regulation and innate, immune functions of defensins. As an undergraduate, she participated in the CSU-LSAMP program at SDSU, where she first developed an interest in immunology. In her last year at SDSU, she was awarded a Minority Access to Research Careers (MARC) scholarship, which initiated research involved in determining the interaction between transcription factors that lead to the proliferation of T-cells. She completed her Masters thesis in two years under the guidance of Professor Edith Porter at California State University, Los Angeles with the support of an CSU-LSAMP Bridge to the Doctorate (Cohort II) Fellowship. Her Master's thesis topic involved determining the antimicrobial activity lipids in airway fluids.



#### Juan Murillo Pacheco

Sonoma State University, B.S. Mathematics, 2010 University of Iowa, Ph.D. Student, Mathematics

**Juan Pacheco** graduated from Sonoma State University with a B.S. in Mathematics in the Spring of 2010. Juan spent the first fifteen years of his life in Peru, before his family moved to Richmond, California. During his college experience Juan has dealt with difficulties being a first generation college student, but persisted working towards graduation. Juan was admitted to the Ph.D. program in Mathematics at the University of Iowa and is currently continuing his studies there.



#### Cristal Vasquez

California Polytechnic State University, San Luis Obispo Undergraduate Student, Mechanical Engineering



Cristal Vasquez is a senior in Mechanical Engineering and is one of Cal Poly's 2011-12 CSU-LSAMP Student Scholars. In the summer of 2009, Cristal conducted research at the NASA Glenn Research Center in Ohio and presented a research poster, "Ares V Advanced Composites Structural Analysis." Cristal spent the summer of 2010 at the Jet Propulsion Lab and then won second place at the annual SHPE Conference for her technical poster "Development of a Highly Flexible Thermal Strap for the Portable Remote Imaging Spectrometer (PRISM)." Cristal attended Tecnun University of Navarra, San Sebastian, Spain, during Fall 2010 where she took upper division classes, including a graduate class in Mechanical Engineering. Cristal plans to pursue a Ph.D. in Mechanical Engineering.

#### **JORGE DINIS**

San Jose State University, B.S. Chemistry, 2011 University of Wisconsin, Madison, Ph.D. Student, Chemistry



Jorge Dinis transferred to San Jose State University from Cosumnes River College, a Community College in the Sacramento Valley. He first became affiliated with the CSU-LSAMP program as an Academic Excellence Workshop facilitator for General Chemistry. Afterward, he was able to secure a MARC position and became research active with Dr. Cleber Ouverney, characterizing uncultivated bacteria from environmental and human sources using molecular techniques. Jorge began his doctoral studies at the University of Wisconsin, Madison in Fall 2011, with the support of a National Science Foundation Graduate Research Fellowship.

#### MICHELLE STURGUES

California State University, San Bernardino Undergraduate Student, Biology

**Michelle Sturgues** is currently an undergraduate majoring in Biology and was a CSU-LSAMP Scholar for the year 2010-11. Through her participation in CSU-LSAMP-sponsored activities, Michelle's desire to attend graduate school increased. Michele studied abroad in Turks and Caicos Islands during the Summer of 2010. While there, she took a Marine Resource Management course that allowed her to study the native coral reef population. She studied the effects echinoderms had on the health of the coral and fish populations. The course was taught primarily in the water, while snorkeling and scuba diving. The research was done on site and made possible by CSU-LSAMP.



#### JUAN MENDOZA

San Francisco State University, B.S. Biochemistry, 2003 University of Texas Southwestern, Medical Center, Ph.D. Student, Molecular Biophysics



Juan Mendoza completed a B.S. in Biochemistry in 2003 at San Francisco State University and conducted M.S. research in Biophysics at SFSU as a CSU-LSAMP Bridge to the Doctorate Cohort I Fellow. He entered the Ph.D. program in Molecular Biophysics with an emphasis in Computational & Systems Biology at the University of Texas, Southwestern Medical Center. Juan is first author on three publications and co-author on seven additional publications. In 2011, he was the recipient of the Dean's Discretionary Award for outstanding oral presentation. Juan is applying to post-doctoral positions across the United States.



#### ROSALINDA GONZALEZ

Humboldt State University, B.S. Environmental Science (Technology), 2010 Oregon State University, M.S. student, Fisheries and Wildlife

**Rosalinda Gonzalez** completed her B.S. in Environmental Science in 2010. While at Humboldt State University, Rosalinda participated in a number of undergraduate research projects. She was accepted into the Southern California Coastal Water Research Project (SCCWRP) as a research intern during the summer of 2008, conducting beach epidemiology studies. In the summer of 2009, she was one of 16 students nationwide to be accepted into the Partnership in Education Program (PEP) at the Woods Hole Oceanographic Institute, where she worked on determining the emission rates of  $CH_4$  and  $N_2O$  by coastal wetlands. Rosalinda is a 2011 recipient of the NSF Graduate Research Fellowship and entered the M.S. program in the Dept. of Fisheries and Wildlife at Oregon State University in Fall 2011.



#### SASHA HIN

California State University, East Bay Undergraduate Student, Biological Sciences

Sasha Hin is a major in Biological Sciences at California State University, East Bay. She is currently working with Professor Gailey and his graduate student, Tina Troung. Sasha's duties in the lab are to provide assistance to Ms. Troung by performing the necessary activities that aid her in completing her thesis work. Such duties in the lab include growing and separating different sexed beetles, isolating RNA from beetle heads, quantifying and evaluating the isolated RNA, and preparing the beetle RNA samples for PCR. Sasha hopes to attend graduate school after graduating from CSU East Bay.

#### JORGE MEDINA

California State University, Long Beach, B.S. Physics & Astronomy, 2009 University of Florida, Ph.D. Student, Chemistry

Jorge Medina earned his B.S. in Physics and Astronomy, *magna cum laude*. He received a Boeing Undergraduate Research Scholarship to conduct research on a self-debugging algorithm for binary matrix. Jorge currently attends the University of Florida, where he is in the Ph.D. program in Chemistry, under Dr. Valerie Kleiman. Jorge was inspired to attend graduate school at UF during an LSAMP-sponsored conference he attended in Washington, DC, where he was introduced to the Dr. Kleiman's research. Jorge is a Bridges to the Doctorate Fellow at UF, and received an Honorable Mention for the National Science Foundation Graduate Research Fellowship.





#### VERONICA GUZMAN

California State University, Chico, B.S. Electrical Engineering, 2011 California State University, Long Beach, M.S. Student, Electrical Engineering

**Veronica Guzman** was a transfer student in CSU Chico's LSAMP Summer Calculus Boot Camp 2005. She earned several academic awards for calculus and served as a facilitator in two calculus workshops for three semesters. Veronica became a CSU-LSAMP Scholar in 09-10. CSU-LSAMP supported her attendance at conferences, including the California Forum for Diversity in Graduate Education. The CSU-LSAMP office at Chico helped her with letters of recommendation and graduate school fees. She attended the pilot Grad School Preparation course in spring 2007. Veronica graduated in Spring 2011 with a B.S. in Electrical Engineering with a minor in Computer Engineering. She continues her education at CSU, Long Beach in the Electrical Engineering Master's program.

#### **HECTOR PEREZ**

California State University, Northridge, B.S. Mechanical Engineering, 2010 University of Michigan, Ann Arbor, M.S. Student, Mechanical Engineering

**Hector Perez** graduated *cum laude* with a B.S. in Mechanical Engineering from CSU Northridge in 2010. While an undergraduate, Hector was a CSU-LSAMP Scholar and won the Second Place Team Award at CSUN's Project Showcase Demonstration in 2010 for the innovative design & development of NorMAN Jr., an Intelligent Ground Vehicle. Hector is currently at the University of Michigan, Ann Arbor working toward a Master's in Mechanical Engineering.

#### YAWO EZUNKPE

San Jose State University, B.S. Aerospace Engineering, 2011 University of California, San Diego, M.S. Student, Aerospace

Yawo Ezunkpe graduated from SJSU with a B.S. in Aerospace Engineering in May 2011 and entered the M.S. program in Aerospace at UC San Diego in Fall 2011. As many graduate programs in Engineering require completion of the M.S. first, Yawo is already well on his way to a Ph.D. During the summer of 2010 Yawo had the opportunity to do research at Texas A&M with Dr. Jacques Richard on plasma modeling and nanocomposite formation. He presented his research at the Emerging Researchers in STEM Meeting in Washington, DC in February of 2011.

#### **SERGIO GARIBAY**

California State University, Bakersfield, B.S. Chemistry, 2006 University of California, San Diego, Ph.D. Student, Chemistry

**Sergio Garibay** earned his B. S. in Chemistry from CSU Bakersfield in 2006. He is currently a Ph.D. student in the Chemistry Program at the University of California, San Diego working under the direction of Professor Seth W. Cohen. He is attempting to construct porous materials named metal-organic frameworks (MOFs) or coordination polymers. The design, synthesis, characterization, and evaluation of MOFs is the goal of his project. Sergio plans on a career in academia and hopes to contribute to the scientific community while actively conducting studies in a leading research institution.



#### **COREY EARLEON BAKER**

San Jose State University, B.A. Computer Engineering, 2008 California State University, Los Angeles, M.S. Electrical Engineering, 2010 University of Florida, Ph.D. Student, Electrical Engineering



Corey Baker began his engineering studies at San Jose State University where he received the Hewlett Packard Scholarship. Corey entered the M.S. program in Electrical Engineering at Cal State, Los Angeles in 2008, joining BD Cohort VI. During his first year at Cal State LA, Corey served as Regional Chairperson for the National Society of Black Engineers. He conducted research with Dr. Deborah Won on neuron simulation data in MATLAB and also worked with Dr. Francisco Valero-Cuevas at the University of Southern California on his thesis research titled, "Design and Implementation of a Non-Linear Dynamical System Replicating Spring Buckling Behavior". This work focused on taking a linear motor and making it have non-linear behavior. Corey is currently a Ph.D. student in Electrical Engineering at the University of Florida. He is a GEM Fellow and Intel Scholar, and is part of the Wireless Information Networking Group under the guidance of Dr. Janise McNair.

#### **TOYIN DUNN**

California State University, Dominguez Hills Undergraduate Student, Biology

**Toyin Dunn** has completed his third year at CSU, Dominguez Hills and has participated in numerous CSU-LSAMP activities, most notably tropical ecological research at La Selva Biological Station in Costa Rica. His work at La Selva has resulted in a research publication. Toyin has more recently changed the area of his research interest, and is focused on entering a Ph.D. program in Molecular Genetics.



#### KENNEDY KIET TUAN VU

California State University, Fresno, B.A. Chemistry, B.S. Health Science, 2011 California State University, Fresno, M.S. Student, Chemistry

Kennedy Vu was enthusiastically involved with CSU-LSAMP as a Peer Mentor, Facilitator for Chemistry AEWs, a CSU-LSAMP Student Scholar, and a CSU-LSAMP Research Intern. His undergraduate research activities allowed him to present at numerous professional scientific conferences. Kennedy continues his graduate education in the M.S. Chemistry program at CSU, Fresno. His research area is in atmospheric chemistry, investigating emissions of volatile organic compounds from San Joaquin Dairies. Kennedy has been awarded the National Science Foundation Chemistry Graduate Student Scholarship (GRASP). He is also employed at the California Environmental Protection Agency with the Department of Toxic Substance Control. Kennedy aspires to earn a Ph.D. in Environmental Toxicology.

#### NOELLA GONZALEZ

California State Polytechnic University, Pomona, B.S. Civil Engineering, 2011 University of Texas, Austin

Ph.D. Student, Environmental and Water Resources Engineering

**Noella Gonzalez** transferred to Cal Poly Pomona in 2008. With CSU-LSAMP funding, Noella conducted a survey of microfiltration technologies in southern California. The following summer she completed an REU at Drexel University's Engineering Cities Program where she carried out research on design and evaluation of carbon monoxide interventions. Noella was accepted into the Ph.D. Program in Environmental and Water Resources Engineering at the University of Texas, Austin for Fall 2011.





#### CINDY BICK

San Jose State University, B.S. Biological Sciences, 2010 B.A. Social Science, 2010 University of Michigan Ph.D. Student, Ecology and Conservation Biology

Cindy Bick conducted undergraduate research at San Jose State with Dr. Leslee Parr on genetic identification of ghost shrimp source populations to California estuaries. She participated in Duke University's NAPIRE program in Costa Rica, where she investigated the relationship of guild affiliation and morphometrics in Costa Rican bat species. Cindy is currently a Ph.D. student at University of Michigan, Ann Arbor in the Department of Ecology and Conservation Biology. Her research focuses on differential survival of Tahitian tree snails during a mass extinction event. Cindy was recently awarded an international fellowship by the University of Michigan to support her research at the London Zoological Society in the United Kingdom.

#### ELIZABETH RUVALCABA

California State University, East Bay, B.S. Industrial Engineering, 2011 Santa Clara University, M.S. Student, Engineering Management

**Elizabeth Ruvalcaba** is currently working at Space Systems Loral as a Manufacturing Engineer in the Bus Electronics Division and attending Santa Clara University part-time to pursue an advanced degree in Engineering Management. Elizabeth was also the Region I Student Representative for the Society of Hispanic Professional Engineers while a student at CSU East Bay. Elizabeth's main focus this year is to devote her efforts at Loral to learning their manufacturing processes and to further improve them by applying all the knowledge gained from CSU East Bay. She hopes to land a management position in the future years.



#### JENA CLEVELAND

California State University, Monterey Bay, B.S. Biology, 2011 University of California, Los Angeles Ph.D. Student, Molecular, Cell and Developmental Biology



Jena Cleveland transferred to CSU Monterey Bay in Fall 2008, where she received the CSU-LSAMP Community College Transfer Merit Award. While a student at Cal State Monterey Bay, Jena conducted summer research projects at both UC Santa Cruz and UC San Francisco. During the academic year, Jena worked with CSUMB's Dr. Aparna Sreenivasan to study freshwater cyanobacteria, harmful algal blooms in the Monterey Bay area. In Fall 2011, Jena entered the University of California, Los Angeles to pursue a Ph.D. in Molecular, Cell, and Developmental Biology. She was awarded the Eugene Cota-Robles Fellowship, which provides four years of funding. She was also awarded a National Science Foundation Alliance for Graduate Education and the Professoriate (AGEP) Competitive Edge grant, which will funded her Summer 2011 research at UCLA.

#### **BRIDGETT SANTOS**

California State University, Fullerton Undergraduate Student, Biology

**Bridgett Santos** is the program assistant for CSU Fullerton's LSAMP office and has been very active in CSU-LSAMP-sponsored research activities. She has attended several conferences including the California Forum for Diversity in Graduate Education, SACNAS, and the American Society for Cell Biology. Her research with Dr. Robert Koch is aimed at elucidating the signaling process involved in ascidian sperm activation. Bridgett was recently accepted to the CSU-LSAMP Costa Rica Summer 2011 Research program.



#### ROSEMARY LUZANIA

California State University, Fresno, B.S. Biology, 2009 California State University, Fresno, M.S. Student, Biology



Rosemary Luzania is entering her final year in the M.S. program in Biology at CSU Fresno. Her research area is the examination of the effects of fasting and re-feeding on the neuroendocrine control of appetite and growth metabolism in tilapia. As an undergraduate, Rosemary actively participated in CSU-LSAMP activities. She was selected to participate in the CSU-LSAMP Research Internship under the guidance of faculty mentor Larry Riley and was a CSU-LSAMP Student Scholar. Rosemary also engaged in summer research experiences including a summer internship in Alaska. As a graduate student, Rosemary received funding through California State University's Graduate Equity Fellowship program and is looking forward to continuing her graduate education at the doctoral level in biology.



#### CANDICE PRICE

California State University, Chico, B.S. Mathematics, 2003 San Francisco State University, M.A. Mathematics, 2008 University of Iowa, Ph.D. Student, Mathematics

Candice Price joined the first CSU-LSAMP Bridge to the Doctorate cohort at San Francisco State in 2004. She is now a Ph.D. candidate in Mathematics at the University of Iowa, planning to graduate in Spring 2012. At the University of Iowa, she was awarded a GAANN Fellowship and an Alfred P. Sloan Fellowship. Candice's research area is topology with an emphasis on knot theory and its applications in DNA topology. Candice spent the Spring 2010 semester at the Mathematical Science Research Institute (MSRI) focused on knot Floer homology. She also began an ongoing research project on virtual braid group with Dr. Lou Kauman through the First Joint Meeting of the AMS and the Sociedad de Matematica de Chile. Candice was recently awarded an NSF-VIGRE traineeship, during which she planned a graduate student conference titled, "Underrepresented Students in Topology and Algebra Research Symposium (USTARS)." In 2011-2012, Candice will be attending the Institute for Mathematics and Its Applications in Minneapolis, Minnesota, for their annual program "Mathematics of Information."

#### VICTOR PEREZ

California State University, Northridge, Undergraduate Student, Computer Science

**Victor Perez**, a Computer Science major and a 2009 CSU-LSAMP Community College Transfer Student Merit Awardee, was part of a five member team that took first place in the SS12: Code for a Cause competition finals that was held on March 19, 2011 in San Diego at the Center on Disabilities International Conference. The competition was sponsored by Microsoft Corporation. The winning CSU Northridge team consisted of Victor Perez, Chris Cederstrom, (both CSU-LSAMP students), Hung Quoc Nguyen, and Barack Karavani. They were recognized for their project on flashcards for hearing and visually impaired users that can be used on computers and mobile devices.

#### SARAH WOOD

Humboldt State University, B.S. Biology, 2010 Wright State University, Biomedical Graduate Preparation Program

**Sarah Wood** serves as a mentor for students with disabilities. Sarah has participated in many undergraduate research experiences, including an REU in Marine Biology & Coastal Ecology with the University of Alaska Southeast in Juneau, Alaska, an REU in Neuroscience for Undergraduates from Rural and Tribal Colleges with the University of North Dakota School of Medicine, and the NIH Short-Term Training Program to Increase Diversity in Health-Related Research at Wright State University. Sarah has been accepted into the GRAD-PREP Biomedical Graduate Preparation Program at Wright State University. Upon completion of the program, Sarah will apply to Ph.D. programs in the areas of Neurobiology or Cognitive Neuroscience at Wright State University, University of North Dakota and Stanford.



#### **BLANCA MORENO-HERNANDEZ**

California State University, Los Angeles, B.S. Chemistry, 2010 California State University, Los Angeles, M.S. Student, Chemistry

Blanca Moreno-Hernandez transferred to UCLA in 2007 and joined CAMP, the UC-LSAMP Alliance. Blanca's academic achievements won her the Osher Transfer Scholar award for two consecutive years. Blanca conducted research projects in both biochemistry and organic chemistry at UCLA and was also an NIH trainee in the Minority Access to Research Careers program. She received the Geissman Award for Excellence in Organic Chemistry upon graduation in 2010. Blanca is currently a CSU-LSAMP Bridge to the Doctorate Cohort VIII Fellow at Cal State Los Angeles, working towards an M.S. in Chemistry in preparation for Ph.D. work. Blanca intends to establish a career in chemistry research. She also hopes to become involved in efforts to encourage minority participation in science.





#### MELISSA MARCHAND

California State University, Bakersfield, B. S. Mathematics, 2011 Florida State University, Ph.D. Student, Applied Mathematics

Melissa Marchand earned her B.S. in Mathematics in June 2011 and entered Florida State University's doctoral program in Applied Mathematics in Fall 2011. Her undergraduate research area focused on finding ways to combat attacks on digital watermarking. As an undergraduate student, Melissa demonstrated strong interest in both research and teaching and served as a facilitator for CSU-LSAMP Academic Excellence Workshops. She also served as a member of the Mathematics Tutoring Center and collaborated with the Mathematics Club. In 2011, Melissa received both CSUB Outstanding Student in Mathematics award, and the CSUB Outstanding Student in the School of Natural Sciences, Mathematics and Engineering award.

#### **ANDREW RITCHIE**

California State University, Channel Islands, B.S., Chemistry, 2009 University of Washington, M.S., Chemistry, 2010

Andrew Ritchie graduated *magna cum laude* from CSU Channel Islands with a B.S. in Chemistry. As an undergraduate, Andrew conducted research in biochemistry under the guidance of faculty member Dr. Blake Gillespie and worked as a prep room assistant in the Chemistry Department and as a tutor in both chemistry and physics. Andrew represented CSU Channel Islands at the CSU Student Research Competition in 2009, presenting "*Characterization of the Copper Chaperone CusF*" in the Undergraduate Biological & Agricultural Sciences category. He also presented his research at the 2009 CSUPERB Undergraduate Research Symposium and the 2009 Southern California Conference on Undergraduate Research. Andrew was accepted into the graduate program in Chemistry at the University of Washington and completed an M.S. in Chemistry in Fall, 2010. He is currently teaching AP Chemistry and Honors Chemistry at a private high school in Burbank, CA. He plans to pursue a Ph.D. and career in Chemistry.



#### SONIA ARTEAGA

San Diego State University, B.S. Computer Engineering, 2006 University of California, Santa Cruz, Ph.D. Student, Computer Engineering

**Sonia Arteaga** has completed her fifth year in the Ph.D. program in Computer Engineering at the University of California, Santa Cruz. Sonia participated in the CSU-LSAMP program while an undergraduate at SDSU. LSAMP advisors recommended that Sonia apply to the prestigious MARC Honors Program. Sonia was selected for MARC and a paper from her undergraduate research was published in the August 2007 edition of *Pattern Recognition Letters* (Vol. 28).

#### VICTOR SANCHEZ ESCALERA

California Polytechnic State University, San Luis Obispo, B.S. Civil Engineering, 2011 California Polytechnic State University, San Luis Obispo, M.S. Civil Engineering, 2011



Victor Escalera was one of Cal Poly's 2009-10 CSU-LSAMP Student Scholars. In the summer of 2009 Victor attended the Pacific Earthquake Engineering Research Center at UC Berkeley and conducted research on "Evaluation of Non-Ductile Reinforced Concrete Building Corner Joint Experiencing Early Column Failure." Victor then entered the 4+1 Civil Engineering program at Cal Poly SLO. He won the Engineering and Computer Science - Graduate Category at the 25<sup>th</sup> Annual CSU Student Research Competition held at CSU Fresno in May 2011 for his structural engineering research presentation "Enhancing Progressive Collapse Resistance of Steel Building Frames Using Thin Infill Steel Panels." Victor was awarded both his B.S. and M.S. degrees in Civil Engineering in June 2011 and he plans to pursue a Ph.D. after working for a couple of years.

#### HENRY PAUL MARTINEZ

California State University, Los Angeles, B.A. Chemistry, 2002 California State University, Los Angeles, M.S. Chemistry, 2007 University of California, San Diego Ph.D. Chemistry, 2011



Paul Martinez participated in an NSF REU program at Cal State, Los Angeles when he was a student at Glendale Community College. He later transferred to Cal State LA, and continued his undergraduate research in Dr. Carlos Gutierrez' lab, working on synthesizing derivatives of the siderophore enterobactin. In 2005, Paul was admitted to the M.S. Program and the CSU-LSAMP Bridge to the Doctorate Cohort II at Cal State LA; and in 2007 he joined the Chemistry Ph.D. program at UC San Diego. His doctoral research, supported by NSF-AGEP and NCI-ET CURE fellowships, focused on new inorganic materials for chemical biological and environmental sensing. Paul has already published some of his graduate work, including a study on an ultrasound contrast marker for breast cancer, which was featured in 2010 as a cover story of the journal *Medicinal Chemistry Communications*. Dr. Martinez completed his Ph.D. in 2011, and is currently in a postdoctoral appointment at the Lawrence Livermore National Laboratories, where he will work on the development of sensors.

#### ERIKA FRANCINE GARCIA

California State University, Los Angeles, B.S. Biochemistry, 2007 California State University, Los Angeles, M.S. Chemistry, 2009 California Institute of Technology, Ph.D. Student, Materials Science



As an undergraduate, **Erika Garcia** participated in the CSU-LSAMP Year Round Research Training program at Cal State Los Angeles. In 2007, she was admitted to the M.S. program in Chemistry and CSU-LSAMP Bridge to the Doctorate Cohort V Activity. Her thesis focused on chemically robust microfluidic devices and applications. The Department of Inorganic and Analytical Chemistry at the University of Debrecen in Hungary sponsored Erika's travel to Debrecen to conduct research into the application of external micro-spectrophotometric detection for microchips, which resulted in a paper submitted for publication. Erika is currently a Ph.D. candidate in Materials Science at Cal Tech. She is supported by a Cal Tech research assistantship.

#### SORAYA SILVA ARRIAGA

San Diego State University, B.S. Biology, Cell & Molecular, 2007 University of Wisconsin, Madison, M.S. Endocrinology Reproductive Physiology, 2011

After graduating with a B.S. in Biology from San Diego State University in 2007, **Soraya Arriaga** continued to conduct research in the lab of her mentor, Dr. Greg Harris. She was accepted into the Master's program at the University of Wisconsin, Madison in Endocrinology Reproductive Physiology Fall 2008. Soraya completed her M.S. in 2011 and hopes to return to California and apply to Ph.D. programs for Fall 2012.

#### **DANIEL WAMBUA**

California State University, San Marcos, B.S. Biology, 2011 Harvard Medical School, Ph.D. Student, Virology

**Daniel Wambua** entered the doctoral program in Virology at Harvard Medical School in Fall 2011, where he plans to work on AIDS research. Daniel transferred to CSU San Marcos from Mt. San Jacinto Community College and was awarded the CSU-LSAMP Community College Transfer Student Merit Award. In the summer of 2009 Daniel was awarded the Minority Access to Research (MARC) Fellowship. He soon started working in the laboratory of Dr. Bianca Mothe using modern technologies to identify specific alleles involved in the immune response of rhesus monkeys. In Summer 2010, Daniel participated in the Graduate Experience for Multicultural Students summer program at the University of Colorado, Denver. Daniel received an award for giving an outstanding presentation at the Annual Biomedical Research Conference for Minority Students (ABRCMS, 2010) where he presented work based on his summer research. His outstanding academic performance and dedication to research qualified him to be the teaching assistant for Comparative Animal Physiology Lab, at CSU San Marcos.



#### CARDIUS RICHARDSON

San Jose State University, B.S. Biological Sciences, 2011 University of California, Santa Cruz Ph.D. Student, Environmental Toxicology

Cardius Richardson entered the Ph.D. program in Environmental Toxicology at the University of California, Santa Cruz in Fall 2011. He was awarded an NSF Graduate Research Fellowship. In addition, he has been selected for the NIH-funded Academy of Future Science Faculty. Cardius obtained his B.S. in Biological Sciences from SJSU in December 2011. As an undergraduate student, he performed research with Dr. David Brook and was funded for his research first through CSU-LSAMP, and then through the NIH RISE Program. His project involved synthesizing a verdazyl analog of terpyridine, a stable free radical, which has the ability to coordinate metal ions giving the potential to form self assembled metal-organic structures with long range magnetic order.



#### **DANIELLE AUGUSTIN**

San Diego State University, B.S. Microbiology, 2001 San Francisco State University, M.S. Microbiology, 2007 University of California, Berkeley, Ph.D. Student, Microbiology

**Danielle Augustin** completed a B.S. in Microbiology from San Diego State University in 2001 and an M.S. in Microbiology from SFSU in 2007, supported by the CSU-LSAMP Bridge to the Doctorate program (Cohort I). Danielle entered the Ph.D. program in Microbiology at UC Berkeley and is a Ph.D. candidate planning to graduate in 2012. She was awarded an NIH Ruth Kirschstein Research Service Award (NRSA) to support her Ph.D. research. She was also awarded a UC Chancellor's Fellowship. Danielle has published four peer-reviewed publications, on two of which she is first author.

#### **ANASTASIA CHAVEZ**

San Francisco State University, B.S. Applied Mathematics, 2006 San Francisco State University, M.A. Mathematics, 2010 University of California, Berkeley, Ph.D. Student, Mathematics



After transferring to San Francisco State in 2003, **Anastasia Chavez** was awarded the Undergraduate Mentoring in Quantitative Environmental Biology (UBM) scholarship. Through UBM, Anastasia joined a mathematical ecology research team that used computer simulation and statistical techniques to analyze sampling methods. She earned her B.S. in Applied Mathematics from SFSU in 2006 and was accepted to the Master's program and CSU-LSAMP Bridge to the Doctorate Cohort IV at SFSU. Her Master's thesis "Bernoulli-Dedekind Sums," with completed under the supervision of Dr. Matthias Beck. Anastasia's joint paper with Dr. Beck, "Bernoulli-Dedekind Sums" was published in *Acta Arithmetica*. Anastasia entered the doctoral program in Mathematics at the University of California, Berkeley in Fall 2011, where she is funded by the prestigious UC Berkeley Chancellor's Fellowship.

#### **EVAN RANDLES**

California State University, Northridge, B.S. Physics and Mathematics, 2010 California State University, Northridge, M.S. Mathematics, 2011 Cornell University, Ph.D. Student, Applied Mathematics

**Evan Randles** entered CSU Northridge in 2006 as a returning transfer student, double majoring in Mathematics and Physics. He graduated *Summa Cum Laude* in 2010. He was admitted to CSU-LSAMP Bridge to the Doctorate Cohort VII at CSU Northridge and completed his Master's in Applied Mathematics in just one year. Evan was admitted to the Ph.D. program in Applied Mathematics at Cornell University starting Fall 2011. His research interests are analysis, probability, mathematical physics and general relativity. He received an NSF 2011-2012 Research Training Group Graduate Assistantship in Probability.



# CLOSE UP

#### VIANEY LEOS

California State University, Bakersfield, B.S. Mathematics, 2011 Iowa State University, Ph.D. Student, Statistics

Vianey Leos earned her B.S. in Mathematics from CSU Bakersfield in June 2011 and has begun her first year as a graduate student in the Ph.D. program in Statistics at Iowa State University. Her undergraduate research focused on investigating diagnostics for detecting under-smoothing caused by GCV, as well as methods for remediating the under-smoothing problem, in non-parametric regression. In addition to her extensive undergraduate research activities, she served as a facilitator for CSU-LSAMP Academic Excellence Workshops for Mathematics. She was also a member of the Mathematics Tutoring Center and served as President of the Mathematics Club during the Academic Years 09-10 and 10-11. In addition, she was awarded the 2010 Waldemar J. Trjitzinsky award, by the American Mathematical Society, and the 2011 CSUB Mathematics Chair Award.

#### **DERICK JOHNSON**

California State University, Chico, B.S. Computer Engineering, 2009 University of California, San Diego, Ph.D. Student, Computer Engineering

**Derick Johnson** entered CSU-LSAMP through the Summer Calculus Boot Camp in 2004. CSU-LSAMP supported his conference attendance and undergraduate research and Derick served as CSU Chico's LSAMP webmaster from Fall 2006 to Spring 2008. He graduated in 2009 with a B.S. in Computer Engineering. He is currently a second-year graduate student in the Computer Engineering Ph.D. program at UC San Diego. Quoting Derick: "the LSAMP program at CSU Chico has done a fantastic job in providing preparation and support in Math, Science and Engineering fields, as well as creating a positive environment of learning and leadership for all students involved. It helped me succeed in my education, and I would like to see it continue to help future underrepresented students succeed in theirs."



#### Grace Idalia Aldana-Masangkay

California State University, Los Angeles B.S. Biochemistry, 2005 California State University, Los Angeles M.S. Chemistry, 2007 University of California, Los Angeles, Ph.D. Student, Biochemistry

Grace Aldana-Masangkay developed an interest in chemistry and biochemistry at Los Angeles City College. After transferring to Cal State LA, she joined the LSAMP program and participated in a variety of biology and chemistry workshops, as well as serving as a chemistry facilitator for the general and organic chemistry sequences. She joined Dr. Jamil Momand's research laboratory to study redox regulation of signal transduction pathways. Grace was accepted into the M.S. program at Cal State LA, joining the CSU-LSAMP Bridge to the Doctorate Cohort III. In 2007 she obtained special honors recognition in graduate studies. Grace is pursuing a Ph.D. in Biochemistry at UCLA supported initially by the Eugene-Cota Robles Fellowship, and more recently by the Graduate Research Supplement (GRS). Her dissertation research focuses on the effect of different drugs in ALL or AML cells and their potential mechanisms that may lead to apoptosis.



#### RAQUEL BARATA

California State University, Channel Islands, B.S. Mathematics, 2011 California State University, Northridge, M.S. Student, Mathematics

Raquel Barata graduated from CSU Channel Islands in only three years with a B.S. in Mathematics and receiving Departmental Honors. She participated in CSU-LSAMP all three years she was at CI and embodied the LSAMP push to engage students in faculty-mentored research. Raquel participated in original research projects in three distinct mathematical fields and was chosen to represent CSU Channel Islands at the CSU Student Research Competition. She has presented the results of her research at numerous local and national conferences, including the Joint Mathematics Meetings in both 2010 and 2011. Raquel began graduate studies in Mathematics at CSU Northridge in Fall 2011 as part of the CSU-LSAMP Bridge to the Doctorate Cohort IX.



#### THOMAS MOTA

California State University, Long Beach Undergraduate Student, Microbiology



Thomas Mota will earn his B.S. in Microbiology in Fall 2011. He has been President of the Biology Student Association and a member of the CSU Long Beach Student Chapter of the American Society for Microbiology. His research, under the direction of Dr. Houng-Wei Tsai, is on sexually dimorphic genes in the mouse cerebellum. Thomas is working on analyzing the expression levels of Sema3G, a member of the semaphorin family, and Calb1 (Calbindin D28K), a calcium-binding protein, in the mouse cerebellum. Thomas also took part in the CSU-LSAMP Global Awareness Program in Innsbruck, Austria for six weeks in the summer of 2011 He conducted research at Innsbruck Medical University, in the lab of Dr. Johannes Zschocke. Thomas is currently applying to Ph.D. programs in Parasitology and Microbial Genetics.

#### MONIQUE BASTIDAS

California State University, Sacramento, B.S. Chemistry, 2010 Pennsylvania State University, Ph.D. Student, Chemistry



As an undergraduate at California State University, Sacramento, **Monique Bastidas**' development as a research scientist was supported by three different CSU-LSAMP research activities: a three-week Introduction to Science Research summer activity, a semester-long research internship experience and a year-long CSU-LSAMP Scholars Program. She also participated in the McNair Program. Monique earned her B.S. in Chemistry with a concentration in Biochemistry from California State University, Sacramento in May 2010 and entered the Ph.D. program in Chemistry at Pennsylvania State University in Fall 2010. Her doctoral research is focused on the biophysical properties of intrinsically disordered proteins.

#### **CARRIE BENDER-WHITAKER**

California State University, Northridge, B.S. Geology, 2010 California State University, Northridge, M.S. Student, Geology

**Carrie Bender-Whitaker** began her undergraduate studies in 2004, majoring in Geology. During that time she participated in various CSU-LSAMP activities including the Summer Research Program. Her focus was "A mafic conglomerate of tectonic significance, North Island, New Zealand". Carrie graduated in 2010 and is currently in the CSU-LSAMP Bridges to the Doctorate (Cohort VII) Program at CSUN. Her research focuses on "sediment provenances on Canterbury Margin, IODP Expedition 317". She has coauthored several publications and plans to continue her education by pursuing a doctoral degree.

#### MARVIN MALONE

California State University, Dominguez Hills, B.S. Chemistry, 2007 Ohio State University, Ph.D. Student, Chemistry & Biochemistry

Marvin Malone graduated with a B.S. in Chemistry from CSU Dominguez Hills in June 2007. He conducted research in theoretical chemistry with Professor H. Leonardo Martinez, performing computational analyses of the stability of carbon nanotubes. Marvin was accepted into numerous Ph.D. programs, including Penn State, Colorado State, Maryland and Arizona. He chose to attend Ohio State University, and is currently in the Department of Chemistry and Biochemistry, working on characterization of the properties of nano-size systems. Marvin has completed his fourth year in the program and is about a year away from completing his Ph.D. thesis. He will be applying for postdoctoral fellowships in the upcoming academic year.



#### IKENNA GREG MADU

California State University, Los Angeles, B.S. Biochemistry, 2005 Cornell University, Ph.D. Virology, 2009

**Ikenna Madu** earned his Ph.D. in Virology from the Department of Biochemistry, Molecular and Cell Biology at Cornell University in 2009. With support from the Central New York—Puerto Rico NSF-AGEP program and a Sloan Fellowship, Ikenna's research focused on virus entry, specifically molecular interactions of enveloped RNA viruses with host cells. As an undergraduate at Cal State LA, Ikenna conducted research supported by CSU-LSAMP and MARC. He was one of the first CSU-LSAMP Student Scholars and also helped facilitate chemistry workshops in the CSU-LSAMP summer bridge program. Ikenna currently holds a post-doctoral position in virology at the City of Hope and hopes to enter the professoriate, where he can continue his research while also teaching the next generation of scientists.



#### PHILIP YBARRA

California Polytechnic State University, San Luis Obispo Undergraduate Student, Mechanical Engineering



**Philip Ybarra** is a 4<sup>th</sup> year Mechanical Engineering student at Cal Poly, SLO. In the summer of 2010, Philip attended Oakland University in Rochester, Michigan, for an NSF REU in Automotive and Energy research entitled "Evaluation of Thermal Conductivity and Viscosity of Water-Based Al<sub>2</sub>O<sub>3</sub> Nanofluids." An active member of SHPE, with support from CSU-LSAMP, Philip presented his research at the 2010 SHPE Conference. In Fall 2011, Philip will be attending Munich University of Applied Sciences studying mechanical engineering. His goals are to earn an M.S. and Ph.D. in Mechanical Engineering and develop an efficient automotive engine.

#### **DAISY MANIVONG**

California State University, Fresno, Undergraduate Student, Civil Engineering

Daisy Manivong is a Civil Engineering major at CSU, Fresno and is actively involved in the CSU-LSAMP Research Internship program. Her research focuses on optimizing concrete mix proportions to obtain maximum strength, durability, and permeability. She has presented her research at various conferences. Daisy is currently President of the local student chapter of Engineers Without Borders. In 2010 she led a team of 13 students, to Phnom Penh, Cambodia to conduct a project that included teaching Civil Engineering and Electrical Engineering to students at the National Technical Training Institute of Cambodia. Daisy also works with the Mathematics Engineering Science Achievement Program to support minority students in STEM. She plans to graduate in Spring 2013, earning a Master's degree prior to continuing towards a Ph.D. in Civil Engineering.





#### NORMA VAZQUEZ

California State University, Monterey Bay B.S. Environmental Science, Technology & Policy, 2010 Oregon State University, Ph.D. Student, Fisheries and Wildlife

In the spring of 2010, CSU-LSAMP Scholar **Norma Vazquez** was awarded an NSF Graduate Research Fellowship. As an Environmental Science, Technology & Policy major at Cal State Monterey Bay, Norma participated in a number of research experiences including a summer research program studying the behavioral and bio-energetic responses of harbor seals to vessel disturbance in Glacier Bay National Park, Alaska, and academic-year research on sea otters with Dr. Tim Tinker at the University of California, Santa Cruz. Norma's research resulted in a number of research presentations at international conferences including the American Society of Limnology and Oceanography Aquatic Sciences Meeting. Norma is putting her undergraduate training and the NSF-GRF fellowship to good use in the Department of Fisheries and Wildlife at Oregon State University, where she is part of Dr. Markus Horning's Pinniped Ecology Applied Research Lab (PEARL) at the Marine Mammal Institute.

#### **GARY GALLEGOS**

California State University, Fullerton, B.S. Biology, 2009 University of California, Berkeley, Ph.D. Student, Chemistry

**Gary Gallegos** graduated from CSU Fresno in 2009 with a B.S. in Biology although his research interest was organic chemistry. While at CSU Fresno, Gary worked on cyclopropenes, highly strained building blocks for organic synthesis, in the laboratory of Dr. Christopher Hyland, Department of Chemistry and Biochemistry. He received the Gerald K. Branch Fellowship in recognition of a distinguished academic record. During his undergraduate career, CSU-LSAMP provided funds for Gary to attend the American Chemical Society National Conference in San Francisco in March 2010. Gary is currently a second-year graduate student in the Ph.D. Program in Chemistry at UC Berkeley.



#### MARIA MACIAS

California State University, Chico, B.S. Mathematics Education, 2008 California State University, Chico, M.S. Mathematics Education, 2010



**Maria Macias** entered CSU Chico as a first time freshman with a Floyd English Scholarship in May 2004 and participated in the CSU-LSAMP Summer Calculus Boot Camp that summer. She distinguished herself as both a student and a peer mentor. Marcia continued to shine as a calculus workshop facilitator and Boot Camp assistant in 2007. She earned her Bachelor of Science in Mathematics Education in Spring 2008 and her Teaching Credential in 2009. Maria then entered the Chico State Master's program, earning an M.S. in Mathematics Education in Fall 2010.

#### MONICA KAPIL

San Jose State University, B.S. Mechanical Engineering, 2009 San Jose State University, M.S. Mechanical Engineering, 2011 University of California, Berkeley, Ph.D. Student, Bioengineering

Monica Kapil completed her B.S. in Mechanical Engineering at San Jose State University in May of 2009. Monica was a CSU-LSAMP Academic Excellence Workshop facilitator for multiple semesters. Her first interaction with the CSU-LSAMP Program was as a student in the Summer Pre-Calculus Program prior to entering San Jose State as a freshman. Monica received an M.S. in Mechanical Engineering from San Jose State in 2011 and subsequently entered the Ph.D. program in Bioengineering at UC Berkeley, where she is also an NSF Graduate Research Fellow. Her research, in the area of bioinstrumentation for quantitative biology and medicine, focuses on innovation in analytical protein measurements as applied to limb and organ regeneration. Monica is very active in UC Berkeley's Latino Association of Graduate Students in Engineering and Sciences (LAGSES).



#### MAREE AFAGA

California State University, Stanislaus, B.S. Mathematics, 2006 San Francisco State University, M.A. Mathematics, 2008 University of California, Santa Barbara, Ph.D. Student, Mathematics



**Maree Afaga** entered CSU Stanislaus as a transfer student. She was a CSU-LSAMP Scholar and received her B.A. (*summa cum laude*) in Mathematics in 2006. She received an M.A. in Mathematics in 2008 from San Francisco State University where she was a participant in the CSU-LSAMP Bridge to the Doctorate Cohort IV. Maree is currently a third year student pursuing a Ph.D. in Mathematics at the University of California, Santa Barbara. Maree participated in the Pacific Coast Undergraduate Math Conference in March of 2010 serving as a panelist for a discussion on what to expect during your first year of graduate school. She was also a teaching assistant in Spring 2011 for Math 34A: Calculus for Social Sciences at UC Santa Barbara which is in line with her aspirations to be a college professor.

#### TALITHA GOWEN

California State University, East Bay, B.S. Engineering, 2009

While an undergraduate at CSU East Bay, **Talitha Gowen** conducted research with Dr. David Bowen, demonstrating that biofeedback such as brainwaves can be used as a modality for control, including control of mobility by maneuvering a remote controlled vehicle. She collected data on learning rates and compared them to traditional mouse control of the same system. Talitha presented her work at the regional Student Institute of Industrial Engineers conference, held at UC Berkeley. After graduating with a B.S. in Engineering in 2009, Talitha went on to work as a quality and projects manager at GD California, Inc., a privately held computer hardware company. Talitha is an active member in the Mt. Diablo chapter of the Society of Women Engineers.



#### CASSANDRA WILLIAMS

California State University, Northridge, B.S. Cell/Molecular Biology, 2007 New York University School of Medicine, Ph.D. Student, Cell/Molecular Biology



#### KEMELLA SILLAH

California State University,
Northridge, B.S. Cell/Molecular
Biology, 2007
Temple University, Nursing Student

Cassandra Williams, a Cell and Molecular Biology major, was very active in CSU-LSAMP as an undergraduate. Because she made the Dean's List regularly she made an excellent Mentor and was also a CSU-LSAMP Scholar. During her undergraduate studies, Cassandra completed a summer research project at Emory University where she conducted research on signal transduction and gene expression. She presented her work at the Annual Biomedical Research Conference for Minority Students. Cassandra graduated in 2007 and is currently attending NYU SOM working toward her Ph.D. in Cell and Molecular Biology at the Skirball Institute. Her long-term goal is to work for the Center for Disease Control and Prevention to study immunological disorders and how they become incorporated in the human genome.

Kemella Sillah graduated with a B.S. in Cell and Molecular Biology from CSU Northridge in 2007. During her academic career she participated in the Summer Undergraduate Research Fellowship (SURF) in the Department of Pharmacology at UC San Diego. She also volunteered at the UCLA Medical Center. These activities, as well as the experience gained from participating in the CSU-LSAMP Academic Year Research Program, were an important factor in her admittance into the USC School of Pharmacological Science Pharm.D./Ph.D. program. After two years at USC she transferred to Temple University to follow her calling for Nursing where she received a Pfizer Oncology Nursing Scholarship in 2010.

#### VICKY GIESE

California Polytechnic State University, San Luis Obispo Undergraduate Student, Biological Sciences

Vicky Giese is a senior in Biological Sciences. During the summers of 2008 and 2009, Vicky was a research intern at Brookhaven National Lab studying the effects of physical and chemical water quality parameters on the distribution of aquatic invertebrates within the Carmans River in Long Island, New York. At the urging of the campus CSU-LSAMP coordinator, Vicky submitted her research abstract to the Emerging Researchers' National (ERN) Conference, where in February 2011, Vicky won second place in the ecological sciences poster category. During 2010-11, Vicky was a research assistant for Cal Poly professor Scott Steinmaus' study of the local invasive vine Delairea odorata (capeivy) in the watershed leading to the Morro Bay Estuary. In summer 2011, Vicky participated in the OTS NAPIRE research project in Costa Rica. Vicky was also one of the campus recipients of the 2010-11 CSU-LSAMP Scholar's Awards, and is an Ambassador for Cal Poly's College of Science and Mathematics. She plans to continue her interest in research and apply to Master's programs.



#### DAVID RUIZ

California State University, San Bernardino, B.A. Chemistry, 2010 University of California, Riverside, Ph.D. Student, Chemistry

**David Ruiz** graduated from CSU San Bernardino with a B.A. in Chemistry in Spring 2010. While at San Bernardino, David was very active in the CSU-LSAMP program, participating in several international as well as graduate school preparation activities. He applied successfully to the University of California, Riverside Mentoring Summer Research Internship Program in summer 2009. He was also a CSU-LSAMP Scholar during the 2009-10 academic year. David entered the doctoral program in Chemistry at UC Riverside in Fall 2010 and is supported by a Dean's Distinguished Fellowship Award.



#### **MELANIE SANDERS**

California State University, Sacramento, B.A. Mathematics, 2009 California State University, Northridge, M.S. Student, Mathematics

**Melanie Sanders** began her participation in CSU-LSAMP as an entering freshman in the 2003 Math Summer Bridge Program at California State University, Sacramento. She continued on to the 2-year Pre-calculus and Calculus enrichment series; and, following her own completion of the series became a student facilitator for Academic Excellence Workshops in Mathematics. Melanie graduated from California State University, Sacramento in 2009 with a B.A. in Mathematics. Melanie plans to pursue a career in mathematics research at the doctoral level, and is currently enrolled in the Master's program in Mathematics at California State University, Northridge, where she is a participant in the CSU-LSAMP Bridge to the Doctorate Program.

#### JESSAMINE QUIJANO

California State Polytechnic University, Pomona, B.S. Chemistry, 2011



Jessamine Quijano, a transfer student from Pasadena Community College and recipient of a CSU-LSAMP Community College Transfer Student Merit Award, quickly became involved in research upon her arrival at Cal Poly Pomona. As a CSU-LSAMP research student she explored biofilm formation on various titanium alloys, a serious issue with prosthetic devices. She continued her research with support from the RISE program and has presented her work at several conferences. Jessamine graduated in June of 2011 and is waiting to hear from several Ph.D. programs.

#### JANET CAMPBELL

California State University, Fresno, B.S. Biology, 2009 Washington State University, M.S./Ph.D. Student, Biology



Janet Campbell is currently completing her second year in the M.S./ Ph.D. program in Biology at the Washington State University School of Biological Sciences under the direction of Dr. Gary Thorgaard. Her research is on issues concerning behavioral and morphological changes that are seen during the domestication process. Janet is preparing a manuscript stemming from work conducted on her project that investigated aggressive behavior and brain size in clonal and outbred Oncorhynchus mykiss (rainbow trout) with different domestication histories. She has presented her graduate research at several regional and national conferences which include: International Society for Applied Ethology North American Regional Meeting- WSU, Pullman; Coastwide Salmon Genetics Meeting- American Fisheries Society Idaho Chapter Boise, ID; Society for Integrative and Comparative Biology (SICB) Salt Lake City, UT. Janet's research was also chosen for the WSU Academic Showcase which was held in Washington in 2011. As an undergraduate student, Janet confirmed her desire to pursue a career in research as a CSU-LSAMP Research Intern and CSU-LSAMP Scholar, working under the direction of Dr. Ryan Early.

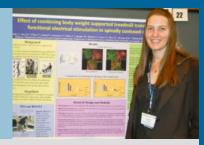
#### Nichole Coleman

San Jose State University, B.S. Chemistry, San Francisco State University, M.S. Chemistry, 2007 University of California, Davis, Ph.D. Student, Chemistry

**Nichole Coleman** completed a B.S. in Chemistry at San Jose State and completed an M.S. in Chemistry at San Francisco State University with support from the CSU-LSAMP Bridge to the Doctorate Cohort I program. She is currently a Ph.D. candidate at the University of California, Davis in the Chemistry Department. She has received an NIH Graduate Fellowship and published two peer-reviewed papers.

#### LAUREN CONN

California State University, Los Angeles, B.S. Exercise Science, 2011



Lauren Conn, who graduated in June, 2011 with a B.S. in Exercise Science from CSU Los Angeles, won first place for her poster presentation in the Biology category at the Emerging Researchers National Conference in STEM held in Washington DC in February, 2011. Her research on the effect of combining body weight supported treadmill training and functional electrical stimulation (FES) in spinally contused rats was conducted under the direction of her research mentor, Dr. Ray de Leon. She joined CSU-LSAMP in 2009 through the Year-Round Research Training program. She plans to spend one more year in the laboratory of Dr. de Leon before pursuing a Ph.D. in neuroscience at the University of Southern California. Lauren enjoys explaining her research to other LSAMP students and to the scientific community, and perhaps one day will mentor students in her own research laboratory.

#### **AARON RAMIREZ**

California State University, Bakersfield, B.S. Biology, 2008 University of California, Berkeley, Ph.D. Student, Integrative Biology



Aaron Ramirez earned his B.S. in Biology from CSU Bakersfield in 2008 and was selected as the 2007-08 Outstanding Graduating Senior of the School of Natural Sciences and Mathematics. Aaron distinguished himself as a student and award winning speaker while at CSUB, but perhaps where Aaron excelled the most was in research. As a junior, Aaron initiated a research project on Santa Catalina Island in Southern California to study the effect of deer browsing on post-fire vegetation recovery. In support of his work, he applied for and was awarded numerous competitive scholarships from the National Science Foundation and the National Institutes of Health. Aaron's work uncovered an important link between deer and the ability of island shrubs to resprout after fire. This discovery will help land managers make informed management decisions on the island. Aaron is currently a Ph.D. student in the Ackerly Lab in the Department of Integrative Biology at the University of California, Berkeley.

#### MILINDA THOMPSON

California State University, Long Beach, Undergraduate Student, Biology

Milinda Thompson will earn her B.S. in Biology from CSU Long Beach in December 2011. She is a member of the Golden Key International Honor Society, and the Biology Student Association. Her research is on evidence for post-Pleistocene range expansion of the Western Fence Lizard in the Great Basin. She has presented her research at numerous conferences including the Emerging Researchers National Conference in Washington, DC, and the Leadership Alliance National Symposium in New Brunswick, NJ. Milinda has participated in several summer REU programs, the NIGMS Bridges to the Baccalaureate program at CSULB, and the Leadership Alliance at Brown University. In the summer of 2010 she participated in the Scripps Undergraduate Research Fellowship (SURF/STARS) at Scripps Institute of Oceanography. Milinda will be applying to graduate school in Fall 2011.



#### JUAN NOGUEZ

California State University, San Marcos, B.S. Mathematics, 2010 University of California, Riverside, M.S. Student, Mathematics



**Juan Noguez** has always marveled at the beauty of mathematics. Juan began his mathematics career at CSU San Marcos in 2004. In Fall 2008, Juan became a CSU-LSAMP Scholar at CSU San Marcos and was awarded the Research Initiative for Scientific Enhancement (RISE) Fellowship. In 2009-2010 he was accepted into the CSU-LSAMP Student Scholar Program for his work on a project in the general area of probability theory which he conducted in the research laboratory of Dr. Amber Puha. Juan graduated from CSU San Marcos with a B.S. in Mathematics in May of 2010. He is currently in his second year of the Master's program in Mathematics at UC Riverside.

#### ONYEKA UZOMAH

California State University, Dominguez Hills, B.S. Biology, 2008 Purdue University, Ph.D. Student, Biological Sciences

Onyeka Uzomah graduated with a B.S. in Biology from CSU Dominguez Hills in June 2008. As an undergraduate, she was a volunteer researcher at Los Angeles Biomedical Research Institute (LABioMed) at Harbor-UCLA Medical Center. In the laboratory of Dr. Mina Desai, she studied signaling pathways in the placenta downstream of the stress hormone CRF. Oneyka was accepted into the Ph.D. program in the Department of Biological Sciences at Purdue University, and is currently in the laboratory of Professor Nancy Pelaez where she studies the smooth muscle physiology of the uterus. She has finished her third year, and passed her preliminary and qualifying exams in the program. She is currently preparing her first manuscript for publication which she hopes will be published in the Fall of 2011.



#### **DAISY JOHNSON**

California State University, Long Beach, B.S. Biology, 2010 California State University, Los Angeles, M.S. Student, Biology

Daisy Johnson earned a B.S. in Biology with an option in Microbiology from CSU Long Beach in 2010. She is currently a Fellow in the Cal State Los Angeles Bridges to the Doctorate Program. During her time at CSU Long Beach, Daisy worked under Dr. Balwant Khatra and presented her research at the CSU Long Beach Annual College of Natural Sciences and Mathematics Student Research Symposium and the Wind River Conference on Prokaryotic Biology in 2010. She also was a Bridges to the Baccalaureate awardee and Honors student in the summer of 2006. She currently works at the Institute for Integrated Research in Materials, Environment, and Society (IIRMES) on the CSU Long Beach campus. Her master's research is on a sendai virus mutation. Her goal is to work for the National Institutes of Health or become a faculty member at a university.



#### JEREMY RUDE

Humboldt State University, B.S. Environmental Science, 2010 University of California, Santa Barbara M.S. Student, Environmental Science and Management

Jeremy Rude served as a Research Intern with the NSF Native American and Pacific Islander Research Experience (NAPIRE) at the Las Cruces Biological Station in San Vito, Costa Rica in the summer of 2009. In Spring 2010, Jeremy was accepted into the Tropical Biology Semester in Costa Rica, through the Organization of Tropical Studies, accredited by Duke University. Jeremy also had the opportunity to be one of three students accepted into the Diversity Project in Bali, Indonesia in the summer of 2010. The Diversity Project included a two-week graduate-level course in Molecular Ecology taught by Paul Barber of UCLA. Jeremy is a recipient of the 2011 NSF Graduate Research Fellowship and has been accepted into the University of California at Santa Barbara Bren School of Environmental Science and Management Master's Program. He plans to pursue research on policy, community, and biodiversity. Upon completion of his Master's degree, Jeremy plans to complete a Ph.D. in Environmental Science.

#### KATHLEEN LEWIS

California State University, Channel Islands, B.S. Mathematics, 2009 University of Northern Iowa, M.S. Mathematics, 2011



Kathleen Lewis joined CSU-LSAMP in Fall 2008 and was an active participant in multiple research projects during her undergraduate career at CSU Channel Islands. She engaged in two years of research into texture analysis under the guidance of Dr. Kathryn Leonard. Kathleen contributed original results to the overall project goal of constructing deterministic models of near-periodic textures (periodic functions composed with a diffeomorphism) that are efficient from an information theoretic perspective. Kathleen is coauthor of a publication stemming from this work that is in preparation. During the summer of 2008 Kathleen participated in an REU at CSU Channel Islands, where she undertook research in graph labeling, a completely different area of mathematics, under the guidance of Dr. Cindy Wyels. Kathleen and a fellow CSU-LSAMP student obtained original results, identifying the radio number of a family of graphs for which it was previously unknown (and proving their identification is correct). Kathleen graduated from CSU Channel Islands in Spring 2009, and was offered a fellowship to attend the University of Northern Iowa (UNI). Kathleen completed her M.S. in Mathematics at UNI in Spring 2011.

#### LEO ARZU

San Diego State University, B.S. Mathematics, 2010 University of Michigan, Ph.D. Student, Pharmaceutical Sciences

**Leo Arzu** recently completed his first year in the Pharmaceutical Sciences Ph.D. program at the University of Michigan. As an undergraduate student, in addition to research, Leo was a Calculus Academic Excellence Workshop Leader. Leo was selected as the Math Department Outstanding Graduating Student in May 2010. Leo was very proud when his CSU-LSAMP undergraduate research was published in the *Journal of Medicinal Chemistry*.



# California State U

California State University, Sacramento, B.A. Biological Sciences, 2002 University of California, San Diego, Ph.D. Bioengineering, 2007

C. MAKENA HIGHTOWER



**Makena Hightower**, as an undergraduate at CSU Sacramento, participated in several CSU-LSAMP supported activities, including a Math Summer Bridge program and mentored research. She was also a McNair Scholar. Makena earned her B.A. in Biological Sciences in 2002, and entered the Bioengineering graduate program at the University of California, San Diego (UCSD), where she was a Fellow in the NSF's AGEP Program and earned her Ph.D. in Bioengineering in 2007. Her dissertation research focused on the effects of ultrasound on the microhemodynamics of microcirculation. Makena went on to a postdoctoral appointment at Charles Drew University, School of Medicine, where, from 2007-2009, she conducted research on PPARdelta in cardiac and skeletal muscle and adipose tissue formation and preservation. She returned to UCSD in 2009 for a second postdoctoral research appointment, where she has been working on development of clinical models for non-invasive observation of the microcirculation.

#### JOVITA MCNAIR

California State University, Fresno, B.S. Biology, 2002 Johns Hopkins University, M.A. Embryology, 2006



Jovita McNair earned her B.S. in Biology from CSU Fresno in 2002. As an undergraduate student, Jovita demonstrated an interest in microbiology, conducting research at California State University, Fresno under the mentorship of Dr. Alice Wright. In addition to her extensive undergraduate research activities, she served as a Peer Mentor for CSU-LSAMP students and a Facilitator for Academic Excellence Workshops in biology and chemistry where several of the students she mentored either pursued medicine or graduate studies. Jovita went on to earn her M.A. in Embryology from The Johns Hopkins University in 2006. Her Master's research, which was conducted at the Carnegie Institution of Washington, focused on the cellular biological processes of the nucleus in several model organisms, including Xenopus and Drosophila, specifically concentrating on a sub-cellular structure called the Cajal Body. As a graduate student, Jovita was awarded The Johns Hopkins University Fourth Annual Diversity Recognition Award in 2006. Currently, Jovita is employed at University of Maryland, School of Medicine at The Center for Vaccine Development, where her focus is identifying virulence properties through studies of molecular pathogenesis to construct vaccine candidates.

#### MOISES RIVERA

California State Polytechnic University, Pomona, B.S. Civil Engineering, 2011 Lehigh University, Ph.D. Student, Structural Engineering

**Moises Rivera** graduated from Cal Poly Pomona in 2011 with a B.S. in Civil Engineering with an emphasis in Structural Engineering. As a CSU-LSAMP Scholar, Moises worked under the supervision of Dr. Monica Palomo on the enzymatic polymerization of phenolic contaminants. He also worked with Dr. Felipe Perez studying performance-based design for seismic hazard mitigation using passive damper, a joint research effort with Lehigh University and California State University, Northridge. He entered the Ph.D. program in Structural Engineering at Lehigh University in Fall 2011.



#### DAVID SANDOVAL

California State University, Fullerton, B.S. Chemistry, 2010 University of California, Santa Barbara, Ph.D. Student, Organic Chemistry

**David Sandoval** is currently a second year graduate student in the Ph.D. program in Organic Chemistry at the University of California, Santa Barbara and was awarded a CAMP NSF Bridge to the Doctorate Fellowship. During David's undergraduate career at CSU Fullerton, he was selected to become the CSU-LSAMP Student Scholar for the 2008-2009 academic year. His undergraduate research with Dr. Chris Hyland focused on the development of transition-metal catalyzed reactions for organic synthesis. David is featured in a short documentary *The Art of Organic Synthesis* regarding Organic Chemistry research studies done in Dr. Hyland's Lab in California State University, Fullerton.



#### MONICA IVETTE MAYNARD

California State University, Los Angeles, B.S. Natural Science, 2006 California State University, Los Angeles, M.S. Geology, 2011

Monica Maynard recently filed her Master's thesis in Geology, which was completed under the direction of Dr. Pedro Ramirez at California State University, Los Angeles. Monica joined the CSU-LSAMP program in 2000 through participation in the Physics Summer Bridge workshops. She later joined the Year-Round Research Training program, and participated in one of the multi-disciplinary research teams. In 2004-2005 she was a recipient of the CSU-LSAMP Scholars Award. In the summer of 2004 she received an internship from the Southern California Earthquake Center (SCEC) through their Communication, Education and Outreach Program. SCEC, a community of over 600 scientists, students, and others at over 60 institutions worldwide and headquartered at the University of Southern California, and funded by the NSF and the USGS. Monica's internship involved taking a 32-page earthquake science and preparedness handbook and translating the text, images, figures and tables into Spanish, and then helping to distribute the information to the general public. SCEC, in partnership with USGS, the Federal Emergency Management Agency (FEMA), and the California Earthquake Authority (CEA) made this project possible. Monica has worked full-time at the SCEC since completion of her Bachelor's degree in 2006, and plans to continue with endeavors to educate the Spanish-speaking community about seismic activity in Southern California and how it affects the general public.



#### MELINDA MENDOLLA

San Jose State University, Undergraduate Student, Chemical Engineering

Melinda Mendolla transferred to San Jose State University in Spring 2008 from West Valley College. She expects to graduate in May of 2012 and will be applying to Ph.D. programs this coming year. Melinda's research with Dr. Daryl Eggers was funded initially by CSU-LSAMP and continued with support from the NIH RISE Program. As an LSAMP student, Melinda participated in the LSAMP Global Awareness 2009 Research Opportunity at the Medical University of Innsbruck, Austria. In Summer 2011, Melinda took part in a three week trip to China, sponsored by the Global Technology Initiative at San Jose State University.

## **DERRICK JONES**

California State University, Northridge, B.S. Computer Engineering, 2010 University of California, Los Angeles, M.S. Student, Computer Science

**Derrick Jones**, a Computer Engineering major, graduated from CSU Northridge in 2010. As an undergraduate, Derrick participated in the CSU-LSAMP Research Program, interned with Edwards Air Force Base and gave several presentations, one of which was at the American Society for Engineering Education, 2010 Zone IV Conference. Derrick is currently attending UCLA, working toward a Master's in Computer Science. To broaden his experiences Derrick spent the summer of 2011 working as an intern at QualComm in San Diego.



#### JOSE MADRIGAL

California State University, Chico, B.S. Mechatronic Engineering, 2007



Jose Madrigal, a transfer student, entered CSU-LSAMP through the CSU Chico Summer Calculus Boot Camp. His peers voted him the student who contributed most to the Camp. CSU-LSAMP supported Jose's research during his time at Chico and he graduated magna cum laude with a B.S. in Mechatronic Engineering in 2007. Since graduation he has been working for the Naval Air Warfare Center Weapons Division as an electrical engineer. While his actual work is classified, his focus is the development of new electronics and firmware. He writes VHDL (very-high-speed integrated circuits hardware description language) code designs circuitry for various projects, i.e. switching power supplies, microprocessor circuits, etc. He plans on pursuing graduate studies in the future.

#### **ELISA ARAUZ**

California State University, Long Beach, Undergraduate Student, Mechanical Engineering

Elisa Arauz will earn her B.S. in Mechanical Engineering from CSU Long Beach in Spring 2012. She is the Vice President of Student Affairs for the Society of Hispanic Professional Engineers at CSU Long Beach, and has also completed the Leadership Academy. Her research, under the direction of faculty mentor Professor Allen Teagle-Hernandez, is on vibration and acoustics modeling. She has begun plotting a car model using CAD to be used for analyzing vibration and acoustics inside vehicle compartments. Elisa plans to apply to graduate school in an Automotive Engineering or Mechanical Engineering M.S. program. Elisa was recently accepted into the internship program at the Jet Propulsion Laboratory in Pasadena for Fall 2011.



#### ARTURO AYALA-NAVARRO

California Polytechnic State University, San Luis Obispo, Undergraduate Student, Mechanical Engineering



Arturo Ayala-Navarro is a senior in Mechanical Engineering and the 2011-12 President of the campus SHPE organization at Cal Poly. In summer 2010 he participated in a FaST summer research experience at Lawrence Berkeley National Lab and in summer 2011 participated in an REU program at MIT. Arturo was a member of the Cal Poly team that won first place in the design competition at the 2010 SHPE conference. The team created the Dual Sport Bot, a basketball hoop that uses sonar sensors and infrared technology to detect players within a three-foot radius and then moves away from them. Arturo is planning to pursue a Ph.D. in Mechanical Engineering.

#### YESSENIA MIRANDA

California State University, San Marcos, B.S. Biology, 2011 California State University, San Marcos, M.S. Student, Biology

Yessenia Miranda's love for science began at an early age in elementary school where she often won Science Student of the Month awards. Yessenia began her biomedical science career at CSU San Marcos in Fall 2006. In the summer of 2008, Yessenia was awarded the CSU-LSAMP Scholar Award and started working in the genetics-focused research lab of Dr. Denise Garcia. Yessenia was involved in identifying innate immune related genes in the shrimp *Litopanaeus stylirostris*. In summer of 2009 Yessenia was awarded the Research Initiative for Scientific Enhancement (RISE) fellowship. Yessenia completed a Summer Research Program at the University at Texas El Paso (2009). She presented her research results at the CSU San Marcos Student research competitions in Spring 2010 and 2011. She graduated with a B.S. in Biology in May, 2011 and entered the Biology Master's Program at CSU San Marcos in Fall 2011.



#### ANGELINA HERNANDEZ

University of California Irvine, B.S. Biological Sciences, 2007 California State University, Los Angeles, M.S. Biology, 2009 Indiana University. Purdue School of Medicine, Ph.D. Student, Cellular & Integrative Physiology

Angelina Hernandez has completed her second year of the Ph.D. program in the Department of Cellular & Integrative Physiology at the Purdue School of Medicine at Indiana University in Indianapolis. Angelina received both a tuition waiver scholarship and a Ph.D. Fellowship from the IBMG program at Indiana University. Her first research experiences were in neuroscience while an undergraduate student participating in CAMP (UC-LSAMP program) in the Department of Biological Sciences at University of California Irvine. She then completed an M.S. in Biology as a CSU-LSAMP Bridge to the Doctorate Fellow at CSU Los Angeles. Angelina plans a career in academia upon completion of her Ph.D. and future post-doctoral experiences.



#### **CHRISTOPHER GUTIERREZ**

California State University, Bakersfield, B.S. Computer Science, 2009 California State University, Northridge, M.S. Computer Science, 2011 Purdue University, Ph.D. Student, Computer Science



Christopher Gutierrez earned his B.S. in Computer Science from CSU Bakersfield in 2009. As an undergraduate, Chris was a 2008 CSU-LSAMP Scholar and demonstrated strong interest in both research and teaching. His undergraduate research focused on finding ways to combat attacks on digital watermarking. In addition to his research activities, Chris served as a facilitator for the CSU Bakersfield AEWs in mathematics and computer science. He was also the Mathematics Tutoring Center Head Tutor in 2008-09. Chris was a CSU-LSAMP Bridge to the Doctorate-Cohort VII Fellow at CSU Northridge, earning a Master's in Computer Science in 2011. He has been selected as a recipient for the Andrews Fellowship at Purdue University and recently began his first year as a graduate student in the Purdue University's doctoral program in Computer Science.

#### RUDOLFO LOPEZ, JR.

California State University, Stanislaus, B.S. Physics, 2011



**Rudolfo Lopez, Jr.** graduated from CSU Stanislaus with a B.S. in Physics in 2011. In addition to being an active participant in the CSU-LSAMP program, he was also a member of the University Honors Program. He started out as a workshop participant and later became a facilitator for Physics I and Physics II courses. Rudolfo spent time as a summer research intern at an REU at the University of Washington, and continued as a research intern at CSU Stanislaus. Rodolfo worked with Dr. Lu Rose Zhang on superconductivity projects. He took second place in the 25<sup>th</sup> Annual CSU Stanislaus Student Research Competition and presented the same poster at the CSU-wide Student Research Competition. Rodolfo also participated in the Emerging Researchers National Conference in STEM in February 2011 in Washington D.C. with a poster entitled "Perfecting a super-recipe: A study of Pb-doped Bi2SR3CA2CU3O11-d superconductors". Rodolfo was first author on a poster entitled "Investigation of Anisotropic Magnetic Properties in (BIPB)<sub>2</sub>SR<sub>2</sub>CACU<sub>2</sub>O<sub>8</sub> Superconducting Crystals" presented at the American Physical Society Meeting in Anaheim, California. Rodolfo has applied to several Master's degree programs with the goal of eventually pursuing a Ph.D. in Physics.

#### **JOSE CORLETO**

California State University, Fullerton, B.S. Biology, 2009 University of California, San Diego, Ph.D. Student, Biomedical Science

**Jose Corleto** is in the second year of the Ph.D. program in Biomedical Sciences at the University of California, San Diego. During Jose's undergraduate career, he received CSU-LSAMP funding to conduct research in the laboratory of Dr. Robert Koch, on the role of the RhoGTPases and their effector proteins on myosin II activation in the sperm of *ascidia ceratodes*. Supported by CSU-LSAMP, Jose presented his research at the American Society for Cellular Biology in 2008.



#### ENRIQUE LOPEZ

California State University, Fresno, B.S. Chemistry, 2005 California State University, Fresno, M.S. Chemistry, 2007 Stanford University, Ph.D. Student, School of Education

**Enrique Lopez** is currently a doctoral student at Stanford University's School of Education where he works on examining factors that affect students' academic performance in chemistry, particularly among historically underrepresented students. Enrique recently completed an NSF-funded longitudinal study investigating the underlying factors contributing to both academic success and difficulties in first-semester organic chemistry, particularly in minority students and women. As an undergraduate, Enrique participated in research activities in atmospheric chemistry, was a CSU-LSAMP Student Scholar and served as a summer chemistry instructor for underrepresented bilingual youth interested in science. After graduate school Enrique looks forward to continuing his research agenda and making a difference on a larger scale as a university professor.



#### MELISSA BERNARDINO

California State University, Long Beach, B.S. Geology, 2011 University of Colorado, Boulder, Ph.D. Student, Geology

**Melissa Bernardino** majored in Geology and Earth Science at CSU Long Beach with an emphasis in Exploration Geophysics and minored in Physics. She has been a member of the Geological Society of America, and was Vice President for the Geological Students Association. Her research, under the guidance of Dr. Rick Behl, involved investigating rapid climate and ocean change 500,000 years ago in the Santa Barbara basin, California. Melissa has received numerous awards, including a Sally Casanova Predoctoral Scholarship, the Minority Undergraduate Research Fellowship at California Institute of Technology, and the Boeing Undergraduate Scholarship at CSU Long Beach. Melissa was awarded Departmental Honors and the Robert D. Rhodes Award, which is awarded to one outstanding candidate from each department, at Commencement in 2011. She entered the Geology Ph.D. program at the University of Colorado. Boulder in the Fall of 2011.

#### MEGAN KELLY

California State University, Monterey Bay, B.S. Environmental Science, Technology & Policy, 2010 California State University, Monterey Bay, M.S. student, Coastal and Watershed Science & Policy



As a CSU-LSAMP Scholar and Environmental Science, Technology & Policy major at Cal State Monterey Bay, **Megan Kelly** conducted research with Dr. James Lindholm's Institute for Applied Marine Ecology (IfAME) lab. Utilizing a full suite of technology tools, including a towed underwater camera sled, she worked to characterize the marine resources on the continental shelf of the Monterey Bay National Marine Sanctuary. This work led to an independent research project presented at the Sanctuary Currents Symposium and SACNAS. Her work with Dr. Lindholm also led to a co-authored paper. Megan is continuing her work with the IfAME lab as a Master's student in Cal State Monterey Bay's Coastal and Watershed Science & Policy program.

#### FRANQUE BAINS

California State University, Los Angeles, B.S. Mathematics, 2009 University of California, Riverside, Ph.D. Student, Pure Mathematics

Franque Bains has completed her second year of the Ph.D. program in Pure Mathematics at UC Riverside. Her research, under the direction of Dr. Wee Liang Gan, is in the area of algebra with a focus on the quantization of the Lie bialgebra of string topology. She is a recipient of a multiyear university fellowship as well as a teaching assistantship. She enjoys explaining math to others, and during her undergraduate years at Cal State LA, she served as a CSU-LSAMP facilitator for a variety of math courses. She participated in a variety of CSU-LSAMP activities including the Year-Round Research Training Program offered through the LSAMP program at Cal State LA. After completing her Ph.D. and hopefully a post-doctoral experience, she plans to pursue a career as a university professor where she can inspire students from diverse backgrounds to love the field of mathematics.



#### TRINIDAD BENJAMIN CISNEROS

California State University, Los Angeles, B.S. Biology,2011 Stanford University, Ph.D. Student, Immunology



Trinidad Cisneros began his first year of graduate school at Stanford University in Fall 2011, entering the Ph.D. program in Immunology with a focus on biomedical research. Stanford University is providing full support via a fellowship, tuition waiver, and scholarships. Trinidad participated in many CSU-LSAMP activities at Cal State LA, including the Year-Round Research Training Program, various science workshops, and serving as a facilitator for the general biology introductory sequence. He also received the CSU-LSAMP Scholars Award in 2010-2011, which helped cover the cost of GRE preparation and travel to various Ph.D. programs around the country. Trinidad conducted research in innate immunology research under the guidance of Dr. Edith Porter, completing his honor's thesis in June, 2011. In summer 2009, Trinidad was an Amgen Scholar at the University of Washington, studying the roles of the protein CDC42 involved in cell migration and notochord formation during early embryogenesis of *Danio rerio*. In summer 2010, Trinidad traveled to Harvard University to work on a project investigating a subset of individuals with autoimmune diseases that have defects in central tolerance.

#### REBECCA RAMOS

California State University, Bakersfield, B.S. Mathematics, 2010 North Dakota State University, Ph.D. Student, Mathematics

Rebecca Ramos earned her B.S. in Mathematics in 2010. As an undergraduate, Rebecca demonstrated strong interest in both research and teaching. Her undergraduate research focused on finding Tunable Balancing of RSA Exponents, work done under the supervision of Dr. Charles Lam. In addition to her extensive undergraduate research activities, she served as a facilitator for CSU-LSAMP Academic Excellence Workshops for mathematics. She also was the Mathematics Tutoring Center Head Tutor in 2009-10 and collaborated with the Mathematics Club during the Academic Years 2008-2009 and 2009-2010. Rebecca is starting her second year as a graduate student in the North Dakota State University's doctoral program in Mathematics.



#### KWAME WIAFE

California State University, Fullerton, Undergraduate Student, Biochemistry



**Kwame Wiafe** is a senior at CSU Fullerton, majoring in Biochemistry. He was a recipient of the CSU-LSAMP Community College Transfer Student Merit Award and was a 2010-2011 CSU-LSAMP Student Scholar. Kwame has participated in CSU-LSAMP supported research with Dr. Katherine Kantardjieff and Dr. Christina Goode of the Department of Chemistry and Biochemistry. In Summer 2009, Kwame travelled to Austria as part of the CSUF-LSAMP Global Awareness Program. Working with Dr. Hans Dieplinger of the Medical Institute at Innsbruck, Kwame used computational techniques to investigate the vitamin-E binding properties of Afamin, a serum protein belonging to the Albumin-gene family. In Spring 2010, Kwame presented his research at the ACS National Meeting in San Francisco, and the SCCUR meeting. Kwame is planning on applying to Ph.D. programs for Fall 2012.

#### LORI OROSCO

California State University, Fresno B.S. Biology/Biochemistry, 2000 California State University, Fresno, M.S. Biology 2002 Johns Hopkins University, Ph.D. Developmental Neurobiology, 2010



Lori Orosco completed her doctoral studies at Johns Hopkins University earning a Ph.D. in Developmental Neurobiology in 2010. Her research focused on understanding the regulation of myelination during development. Lori was awarded an M.S. in Biology in 2002 from CSU Fresno. As an undergraduate, Lori was actively involved with CSU-LSAMP program activities, including serving as a Facilitator for Academic Excellence Workshops in biology and inorganic chemistry and a Peer Mentor for lower division students. Lori enthusiastically pursued undergraduate research in microbiology under the mentorship of Dr. Alice Wright. Currently, Lori is a Post-Doctoral Fellow at the Institute of Pediatric Regenerative Medicine, Shriners Hospital for Children Northern California and University of California Davis School of Medicine. Lori's research focuses on understanding the genetic and molecular mechanisms regulating neocortical development. Lori was recently awarded an independent postdoctoral grant to fund her research for the next three years.

#### LUIS RUELAS

San Jose State University, Undergraduate Student, Materials Engineering

**Luis Ruelas** transferred to San Jose State University from the National Hispanic University and will graduate in the summer of 2012. His goal is to obtain a Ph.D. in order to conduct research in renewable energy. His first research experience was as part of the LSAMP program at Cornell University. His project was "*Inertial Particle Dynamics in Turbulent-Laminar Mixing Layer*." He is currently doing research with Dr. Guna Selvaduray at San Jose State University.



#### CYNTHIA CLOWER

San Jose State University, B.S. Biology, 2006 Harvard Medical School, Ph.D. Student, Systems Biology

**Cynthia Clower** was the first CSU-LSAMP Scholar from San Jose State University (SJSU). She is about to obtain her Ph.D. in Systems Biology, focusing on cancer research, from Harvard Medical School and will be a Presidential Post Doctoral Fellow at Novartis in Switzerland in Fall 2011. Cynthia was also a MARC student at SJSU where she did research with Dr. Herbert Silber in the Chemistry Department.

#### ERIC GUERRA

California State University, Sacramento, B.S. Electrical Engineering, 2004 California State University, Sacramento, M.P.P., 2008

Eric Guerra graduated from tiny, rural Esparto High School and joined the CSU-LSAMP Math Summer Bridge program at California State University, Sacramento before his freshman year, in 1996. After graduating with a B.S. in Electrical and Electronic Engineering in 2004, Eric was admitted to the prestigious Senate Fellows program, which had him working as a legislative staffer in the office of State Senator Gil Cedillo. Eric went on to earn a Master's in Public Policy and Administration from Sacramento State in 2008. Working on legislation related to social justice, immigration, and projects that relate to his engineering background, he is now the chief of staff for State Assemblyman Warren Furitani. Eric also currently serves as a member of the Sacramento County Planning Commission.

#### **BENJAMIN BUSH**

California State University, Long Beach, B.S. Mathematics, 2007 Binghamton University, State University of New York Ph.D. Student, Systems Science



Benjamin Bush is currently a second-year Ph.D. student in Systems Science at Binghamton University, State University of New York, in the research lab of Dr. Hiroki Sayama with support from an NSF Research Assistantship. His research focuses on an evolutionary perspective on collective decision making. As an undergraduate, Ben participated in the CSU-LSAMP program at CSU, Long Beach and was a CSU-LSAMP Scholar. Upon graduation, he was accepted into the M.S. program in Mathematics, and awarded a two-year CSU-LSAMP Bridge to the Doctorate fellowship (Cohort V) at California State University, Los Angeles with advisor, Dr. Gary J. Brookfield. Through the Control & Dynamical Systems (CDS) Interdisciplinary Program at California Institute of Technology (Caltech), Ben was able to enroll in various courses not offered at CSULA at no additional cost. The CDS program provided rigorous training in mathematics, dynamics, and control, coupled with intensive study of application areas in science and engineering. Ben engaged in some collaborative research as well as use of the CDS program's computational facilities during the first year of his fellowship. Ben presented his research at various conferences including the international Genetic and Evolutionary Computation Conference 2009 Graduate Student Workshop at Delta Centre-Ville Hotel in Montreal, Quebec, Canada. After he completes his Ph.D., Ben wants to continue an active research program in evolutionary computation from a computer science and mathematical perspective.

#### CRISTO RAMIREZ

California State University, Northridge, B.S. Geology, 2009 Pennsylvania State University, Ph.D. Student, Geology

Cristo Ramirez received a B.S. in Geology from CSU Northridge in 2009. During his undergraduate studies he worked hard during summers as a Field Assistant, collecting volcanic samples and mapping the Lone Pine Volcanic field. He also assisted in topographic surveying of the San Emigdio Mountains to create a future trench site. In the summer of 2008 he assisted in the collection of various rhyolites in the Bosque de la Primavera, Mexico. After graduation, Cristo was accepted into the CSU Northridge Master's program in Geology and was admitted into the CSU-LSAMP Bridge to the Doctorate Program at CSU Northridge. In 2009 and 2010 Cristo participated in several international field projects. Cristo was admitted to Penn State where he will work towards a Ph.D. in Geology.



#### OSINACHI AJOKA

California State University, Dominguez Hills, B.A. Geography, 2011 California State University, Long Beach, M.S. Student, Geography

**Osinachi Ajoka** graduated from CSU Dominguez Hills with a B.A. in Geography in June 2011. As an undergraduate, Osinachi conducted research with Professor John Keyantash in GIS delineation of the hydrologic basins in the Sierra Nevada mountains, and is currently conducting research with Professor Ashish Sinha in rock carbonite sampling at the USC Climatology Lab. He was accepted into a number of Ph.D. programs, including the University of Nevada at Reno, but has opted to first complete a Master's degree in Geography at CSU Long Beach.



#### **ALEXIS HALL**

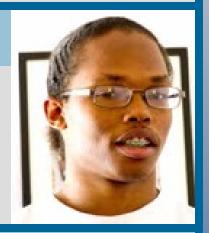
California State University, Monterey Bay, B.S. Environmental Science, Technology & Policy, 2010 University of Alaska, Fairbanks, Ph.D. Student, Marine Ecosystems

Alexis Hall has always been committed to making her mark on the research community by encouraging underrepresented young women to pursue careers in science. Alexis began her career as an Environmental Science, Technology & Policy (ESTP) major at CSU Monterey Bay. She volunteered for the Salinas Girl Scouts, helped students prepare for the GRE, and counseled younger students on the college experience. She also worked to communicate her research to a broader audience, most notably through the CSU-LSAMP Undergraduate Research video project, which has been used in California and Washington, DC to highlight the value of LSAMP and undergraduate research. Alexis' research included work with Dr. Rikk Kvitek's Seafloor Mapping Lab, where she used a remotely operated vehicle (ROV) and geospatial technology to measure the rate of tidal erosion and habitat change in Elkhorn Slough. Given her extensive research experience, Alexis was invited to participate in an expedition to Bermuda to explore deepwater caves using multi-beam sonar and an ROV. Alexis was the only undergraduate researcher invited to participate in this multi-institutional, multinational research program. In Fall 2010, Alexis entered the graduate program at the University of Alaska, Fairbanks with a National Science Foundation-funded MESAS (Marine Ecosystem Sustainability in the Arctic and Subarctic) Ph.D. Fellowship. In Alaska, Alexis continues her research in the field of marine ecosystem-based management, with special attention to the interaction of important fisheries species, their habitats, and generating models illustrating the consequences of different management decisions in natural resources and the economy.

## TRUMAN JEFFERSON

San Jose State University, Undergraduate Student, Chemical Engineering

**Truman Jefferson** is a third year Chemical Engineering major. He is conducting research with Dr. Gilles Muller in bio-inorganic chemistry, characterizing the chiral binding sites of Calmodulin, the protein that mediates the effect of calcium in both vertebrates and invertebrates. Truman was able to present his work at the 2010 ABRCMS Meeting. Truman is legally blind. His goal is to pursue a Ph.D. in Engineering and inspire his younger siblings to excel in education.



#### MIGUEL ARELLANO

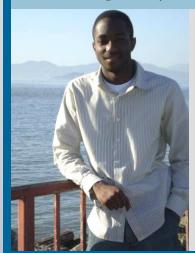
California State University, Chico, B.S. Computer Engineering, 2006



Miguel Arellano joined CSU-LSAMP through participation in the 2001 CSU Chico Summer Calculus Boot Camp. He later served as facilitator in Academic Excellence Workshop for calculus and recruited other students for the Summer Calculus Boot Camp. He was a CSU-LSAMP Scholar in 2005 and earned his B.S. in Computer Engineering in Spring 2006. Since graduation, he has been working for Chevron in San Ramon. He is a subject matter expert for server virtualization using VMware. His title is Virtualization Analyst. He is currently working on one of the top 10 projects for Chevron Information Technology Company, virtualizing servers out of the San Ramon and Houston Data Centers.

#### **UCHENNA AWANYU**

San Jose State University, B.S. Computer Engineering, 2009 Virginia Polytechnic Institute and State University, Ph.D. Student, Computer Engineering



**Uchenna Awanyu** graduated from San Jose State University in May, 2009 with a B.S. in Computer Engineering. While at San Jose State University, Uchenna conducted research with Dr. Gilles Muller, Professor of Chemistry under the MARC Program. Prior to being funded by MARC, Uche had CSU-LSAMP funding for research and was employed as an AEW facilitator for Physics. Uchenna recently completed his second year of graduate study in Computer Engineering at Virginia Tech. His research interest is in the area of improving protocols for wireless networks. Currently, he is working on a project with Trinity College in Ireland to develop new techniques to improve Wifi, 802.11 standards, in programmable hardware devices. His career goal is to become a college professor at a top research university and continue to do research in the area of wireless communications.

#### **ALIN GONZALEZ**

California State University, Monterey Bay, B.S. Environmental Science, Technology & Policy, 2011 Texas A&M University, Corpus Christi, M.S. Student, Fisheries and Mariculture

Alin Gonzalez was a 2010-11 CSU-LSAMP Student Scholar and graduated from CSU Monterey Bay in 2011, with a degree in Environmental Science, Technology & Policy (ESTP). Alin conducted research with Drs. Marc Los Huertos and Steve Moore. Her work with Dr. Moore led to a research poster at the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) National Conference. While at CSUMB, Alin volunteered with the Monterey Bay Aquarium's Sea Otter Research and Conservation Program; she also served as a water quality trainee in the Central Coast Watershed Studies labs. Alin participated in summer research at Texas A&M University Corpus Christi's Fisheries Ecology Lab. In Fall 2011, Alin entered the Texas A&M University-Corpus Christi's Master of Science degree program in Fisheries and Mariculture.



#### ABDULLAH MUHAMMAD MADANY

California State University, Los Angeles B.S. Chemistry and Biochemistry, 2011 University of California, Riverside, Ph.D. Student, Molecular Biology



Abdullah Madany transferred to Cal State LA from LA Trade Tech in Fall 2008 and immediately joined the CSU-LSAMP program. Initially he participated in the Genetics September BREEZE program (an intensive 3-week emersion into genetic concepts and problem solving) and the Academic Year Workshops in organic chemistry. He helped facilitate the general chemistry AY workshops and eventually in organic chemistry. He also actively participated in the Year Round Research Training program and was a CSU-LSAMP Scholar in 2010-2011. His undergraduate honor's thesis involved lipid metabolism research under the guidance of Dr. Raymond Garcia in the Department of Chemistry & Biochemistry at California State University, Los Angeles. Abdullah entered the Ph.D. program in molecular biology at UC Riverside in Fall 2011. He is currently deciding whether to pursue a career in industry upon completion of his Ph.D. and post-doctoral experience or seek to become a university professor.

#### ALEX DUNLAP

San Jose State University, B.S. Electrical Engineering, 2009 Georgia Institute of Technology, Ph.D. Student, Bioengineering

Alex Dunlap recently completed his first year of the Ph.D. program in Bioengineering at Georgia Tech. He is investigating the information processing capabilities of neural systems and how they can be applied to intelligent signal processing algorithms. Specifically he is working on a modeling collaboration between his advisor, Dr. David Anderson, who studies speech processing algorithms, and Dr. Robert Liu at Emory University who studies neural circuitry of the auditory cortex. Alex first received support for his undergraduate education from the CSU-LSAMP program. He was able to work as an Academic Excellence Workshop facilitator. This allowed him to be a strong applicant for the NIH MARC Program, which funded his research with Dr. Gilles Muller for two years. Alex presented his work at several meetings and is co-author in a publication. Through the Global Technology Initiative in the College of Engineering, he was funded for a three week visit to China which allowed him to learn about technology in China.



#### **EXEQUIEL SINCO**

California State University, Fresno, B.S. Civil Engineering, 2009 California State University, Fresno, M.S. Student, Civil Engineering



**Exequiel Sinco** is currently working toward an M.S. in Civil Engineering with an emphasis in Geotechnical Engineering at CSU Fresno. His research involves subsurface internal erosion of soil. Exequiel's thesis is titled "*Piping Progression of Sand Under Various Permeating Fluids*". The goal of this research is to understand the fundamental mechanisms of piping progression (subsurface internal erosion) in levees and earthen dams. As an undergraduate, Exequiel interned with Dr. Ming Xiao under the CSU-LSAMP Research Internship, was a CSU-LSAMP Scholar, and was awarded several undergraduate research awards offered by the University. Exequiel is currently working at BSK Associates in Fresno, California as a staff engineer. His future goals include earning Professional (P.E.) and Geotechnical (G.E.) Engineering licensure and is also considering applying to Ph.D. programs in the near future.

#### CELSO ESPINOZA

California State University, Sacramento, B.S. Chemistry, 2001 University of Colorado, Boulder, Ph.D. Chemistry/Biochemistry, 2007

Celso Espinoza entered the CSU-LSAMP program at California State University, Sacramento as a transfer student in 1998. He graduated with a B.S. in Chemistry in 2001 and then entered the Ph.D. program at the University of Colorado, Boulder, where he earned his Ph.D. in Chemistry/Biochemistry in 2007. His doctoral research dealt with elucidating the structure and function of B-2 RNA, a non-coding RNA that binds to RNA polymerase II and represses transcription. Celso is currently an NIH/NCI Cancer Postdoctoral trainee in the Laboratory of Gene Regulation, Ludwig Institute for Cancer Research at UC San Diego, where his work is focused on techniques to capture 3D interactions of transcriptional factors.



#### **OMAR MORENO**

University of California Irvine, B.S. Physics, 2006 California State University, Los Angeles, M.S. Physics, 2009 University of California, Santa Cruz, Ph.D. Student, Particle Physics



**Omar Moreno** is currently a second-year Ph.D. student at the Santa Cruz Institute for Particle Physics at the University of California, Santa Cruz. His research is in the area of high energy physics and he has been supported by a UC Regents fellowship, UC-Santa Cruz Department of Physics Teaching Assistantship, a fee fellowship and a teaching assistant fee reduction grant. At CSU Los Angeles, Omar's M.S. thesis focused on the identification of final state protons with the use of a lead glass calorimeter in the nuclear physics laboratory of Dr. Konrad Aniol. Omar was awarded a two-year CSU-LSAMP Bridge to the Doctorate fellowship (Cohort V) for 2007-2009. NSF-JAM 2008 invited Omar to serve on a panel to discuss applying to graduate school with other BD fellows across the country. After Omar completes his Ph.D. and post-doctoral experience, he plans to seek a position in high energy physics. He enjoys teaching physics to undergraduates, and may seek a faculty position.

#### PRISCILLA ANTUNEZ

California State Polytechnic University, Pomona, B.S. Chemistry, 2009 University of Southern California, Ph.D. Student, Chemistry

**Priscilla Antunez** graduated from Cal Poly Pomona in June 2009 with a B.S. in Chemistry and entered the Ph.D. program in Chemistry at USC the following Fall. Priscilla attributes the CSU-LSAMP program with providing the opportunity to facilitate AEWs, reinforcing her knowledge while giving back to the community by sharing this knowledge with other students. Priscilla's undergraduate research was supported by CSU-LSAMP, allowing her to travel and present her research; She also received financial support from CSU-LSAMP through the graduate school application process (GRE preparation and application costs). "This financial support allowed me to concentrate on my studies and maintain a good GPA without having to work more hours." All of these factors were key to her success in receiving USC's Fellowship Award for chemistry graduate studies.





#### **GREGORY SHINAULT**

California State University, Bakersfield, B.S. Mathematics, 2007 University of California, Davis, Ph.D. Student, Applied Mathematics

**Gregory Shinault** earned his B.S. in Mathematics from CSU Bakersfield in 2007. Greg is currently a Ph.D. student in Applied Mathematics at UC Davis. His current interests are in probability and mathematical physics, particularly the Airy process and some random growth models. This love for "the applied" grew from his undergraduate research at CSU Bakersfield, which was supervised by Dr. Yangsuk Ko. As an undergraduate, Greg demonstrated strong interests in both research and teaching. In addition to his extensive undergraduate research activities, he served as a facilitator for CSU-LSAMP Academic Excellence Workshops for mathematics. He also was a member of the Mathematics Tutoring Center.

#### KASSANDRA SENDZIAK

California State University, Fullerton, B.S. Geology, 2010 Colorado School of Mines, M.S. Student, Geology



Kassandra Sendziak is currently a second year graduate student at the Colorado School of Mines (CSM), working towards an M.S. in Geology. Her research focuses on an outcrop study of ancient fluvial/river systems in Desolation Canyon, Utah. In the summer of 2011 she interned for an energy company in Texas and will complete her fieldwork in Fall 2011. At CSU Fullerton, Kassandra was admitted as a transfer student and was supported by CSU-LSAMP in her senior year. She worked with Dr. Philip Armstrong and presented a research poster in October 2009 at the Annual Geologic Society of America meeting in Portland, OR. At the Colorado School of Mines, Kassandra is part of the Chevron Center of Research Excellence and has been awarded a Devon Scholarship, the Robert L. Burch, Fellowship, and the Timothy and Barbara Bartshe Fellowship.

#### **VICTOR CERVANTES**

California State University, Northridge, B.A. Manufacturing Systems Engineering, 2006 University of Illinois, Urbana-Champaign, M.S. Civil Engineering, 2009

Victor Cervantes studied Manufacturing Systems Engineering with a focus on Materials Engineering at CSU Northridge from 2002–2006. He was a CSU-LSAMP Student Scholar in 2005/06. During his undergraduate career, Victor presented research at more than ten conferences. He placed first on three occasions and in the top three on two other occasions. Victor was also involved with four different research projects at four different institutions: CSUN, Carnegie Mellon University, NASA's Jet Propulsion Laboratory and the University of Illinois at Urbana-Champaign. Victor graduated from CSU Northridge in May 2006 and went on to earn a Master's in Civil Engineering at the University of Illinois, Urbana-Champaign in 2009.



#### FLORANTE RICATE

California State University, Long Beach, B.S. Biology, 2011 New York University School of Medicine, Ph.D. Student, Cell and Molecular Biology



Florante Ricate graduated with Honors from CSU Long Beach in 2011 with a B.S. in Biology with an option in Cell and Molecular Biology and a Minor in Chemistry. He was accepted into the New York University School of Medicine, Ph.D. program in Cell and Molecular Biology beginning Fall 2011. Under the guidance of Dr. Editte Gharakhanian, Florante's research centered around novel genes, protein interactions of humans and genomic screens for endosome interface. During his time at CSU Long Beach, Florante attended the CSUPERB Annual Symposium and was a Nagel Award Recipient. Additionally, Florante received an award for Outstanding Presentation in Cell Biological Sciences at the Annual Biomedical Research Conference for Minority Students (ABRCMS) in November 2010. He is a member of American Society for Cell Biology and was an active member of the CSU Long Beach Biology Student Association. As an undergraduate he was first author on a submitted manuscript and was co-author on another published article. His future plans are to complete his Ph.D. and pursue a career in genetic research.



#### **CHRISTIAN GUERRERO-JUAREZ**

California State University, San Bernardino, Undergraduate Student, Biochemistry

Christian Guerrero-Juarez is an undergraduate at CSU San Bernardino, who shows great promise as a future graduate student in Biochemistry. In the summer of 2009, he participated in the Short Term Training Program for Minority Students at Indiana University. During the 2009-10 and 2010-11 academic years he has been working under Dr. Laura Newcomb at CSU San Bernardino, in the area of molecular virology. Christian also participated in the summer 2010 Undergraduate Training Program at Loma Linda University Center for Health Disparities and Molecular Medicine. There, he worked under Drs. Penelope Duerksen-Hughes and Valery Filippov, on a project on cancer biology. The outcome of that project is the paper *Splice Variants of IL-24 Differentially Affect Survival and Induce Apoptosis in U2OS Cells*, which is currently under review in the journal *Cytokine* and lists Christian as a co-author. Christian is currently a 2011-12 CSU-LSAMP Student Scholar.

#### MARIO SALDANA

California State University, Fresno, B.S. Mechanical Engineering, 2011 Colorado School of Mines, Ph.D. Student, Mechanical Engineering

Mario Saldana launched his graduate studies in Fall 2011. He was accepted into several graduate programs (both Master's and Doctoral) at such universities as UC Merced, UC Davis, Carnegie Mellon, and Colorado School of Mines. Mario decided to attend Colorado School of Mines, where is he is an LSAMP Bridge to the Doctorate Student pursuing a Ph.D. in Mechanical Engineering. His research interest is thermal science, which he pursued as an undergraduate student in the CSU-LSAMP Research Internship, under the mentorship of Dr. Ira Sorensen. As an undergraduate CSU-LSAMP student Mario actively participated in graduate preparation activities including CSU-LSAMP-supported Graduate Record Exam (GRE) preparation sessions, Peer Mentoring program, and conferences. Mario is looking forward to a career in research.





#### **JUAN ROCHA ARIAS**

California State University, Chico, B.S. Civil Engineering, 2011 University of Colorado, Boulder M.S. Student, Hydrology, Water Resources, and Environment Fluid Mechanics

Juan Pablo Rocha Arias became a member of CSU-LSAMP at Chico State and quickly distinguished himself as an excellent student, seriously interested in research as a Civil Engineering major with an emphasis in Mathematics. He conducted three undergraduate research projects supported by CSU-LSAMP. At CSU Chico he served as a Differential Equations workshop facilitator, as a CSU-LSAMP Scholar, and as the facilitator coordinator. He also enrolled in a Graduate Preparatory course in Spring 2009. He graduated in Spring 2011 with a B.S. in Civil Engineering. He was accepted into the University of Colorado at Boulder, Hydrology, Water Resources, and Environmental Fluid Mechanics M.S. program and then and plans to pursue a Ph.D. in this field. Juan writes, "Thanks to the CSU-LSAMP program at Chico State I am in this position today leading to success in my future."

#### KENNETH RODRIGUEZ

California State University, Dominguez Hills, B.S., Chemistry, 2001 Ohio State University, M.S. Chemistry, 2005 Ohio State University, Ph.D. Chemistry, 2007



Kenneth Rodriguez graduated from CSU Dominguez Hills with a B.S. in Chemistry in June, 2001. He received the CSU Dominguez Hills Alumni Outstanding Achievement Award in 2001. He was accepted into the Ph.D. program in the Department of Chemistry and Biochemistry at Ohio State, conducting research with Professor James Coe studying the properties of materials on the nano-scale. He received the Lilly Endowment Inc./Hispanic Scholarship Fund for Scholars in 2001 and an award for Outstanding Research poster presentation at the William Lloyd Evans Lecture (Ohio State) in 2006. He received an M.S. (2005) and Ph.D. in Chemistry (2007) from Ohio State. Upon completion of his doctorate, Ken returned to CSU Dominguez Hills where he is now an Assistant Professor of Chemistry.

#### LYDIA JENNINGS

California State University, Monterey Bay, B.S. Environmental Science, Technology & Policy, 2011



Lydia Jennings transferred to CSU Monterey Bay in Fall 2008 as an Environmental Science, Technology & Policy (ESTP) major. Lydia, a CSU-LSAMP Community College Transfer Student Merit Awardee is committed to improving water quality, particularly on reservation lands, where she hopes to return one day and help improve native communities. As an undergraduate, Lydia conducted research at the University of Southern California with Dr. Sergio Sanudo-Wilhelmy and at Cal State Monterey Bay with Dr. Marc Los Huertos. In Fall 2011, she began working as a toxicologist at the UC Davis Marine Pollution Studies Laboratory at Granite Canyon. Lydia looks forward to applying to graduate programs next year.

Duy T. Vo

California State University, Los Angeles, B.A. Physics, 2010 California State University, Los Angeles, M.S. Student, Physics

**Duy Vo** is currently a first-year graduate student in the M.S. Physics program at Cal State LA. His graduate thesis project, under the guidance of Dr. Milan Mijic, is an extension of research that he began as an undergraduate. Duy has been involved in the development of mathematical descriptions of space flight that have now been implemented into a video game. He has also completed two summer internships with the Jet Propulsion Laboratory. Duy joined CSU-LSAMP in 2008 through his participation in the Physics September BREEZE activity. During the academic year 2008-2009, he volunteered to help facilitate physics workshops for LSAMP undergraduates. In 2010 he participated in the CSU-LSAMP Scholars Program. After he completes his Masters' degree in 2012, Duy hopes to work full-time at the Jet Propulsion Laboratory to gain work experience, but within two-to-three years he plans to pursue a PhD in condensed matter physics.



#### FELIX PEREZ

California State University Fresno, B.S. Chemistry, 2007 University of California, Los Angeles, Ph.D. Student, Organic Chemistry



**Felix Perez** is currently a fifth year graduate student in the Ph.D. program in Organic Chemistry at UCLA. His research focuses on using *ortho*-benzoquinones as useful intermediates in organic synthesis. Felix is a Chemistry-Biology Interface Trainee and a Christopher S. Foote Fellow at UCLA. As an undergraduate, Felix showed an interest in synthetic chemistry, actively performing research as a CSU-LSAMP Research Intern and a CSU-LSAMP Scholar under the faculty mentorship of Dr. Saeed Attar. Felix furthered his research as a summer intern at Pfizer. In addition to his extensive undergraduate research activities, he served as an enthusiastic facilitator for Academic Excellence Workshops for organic chemistry, general chemistry and calculus. Felix was awarded the Dean's Medal and the President's Medal when graduating from CSU Fresno. In the future he hopes to take a role in science education or research and development at a company.

#### **OCTAVIO ROMO FEWELL**

San Diego State University, B.S. Chemistry (Biochemistry), 2011 University of North Carolina, Chapel Hill, Ph.D. Student, Pharmaceutical Sciences

**Octavio Romo Fewell** entered the CSU-LSAMP program at San Diego State University in the summer of 2004 through the Summer Pathways Through Calculus program while he was still a community college student. Octavio remained active in CSU-LSAMP sponsored workshops at his community college and transferred to SDSU in the spring of 2007. While at SDSU, Octavio continued to be active in AEWs, research projects and seminars. Octavio was accepted into the LSAMP REU Summer Program through the University of Florida, which enabled him to do research in Thailand. Octavio entered a Ph.D. program in Pharmaceutical Sciences at the University of North Carolina, Chapel Hill in Fall 2011.

#### GILBERTO URIBE VALDEZ

California State University, Bakersfield, B.S. Biology, 2010 University of California, Riverside, Ph.D. Student, Plant Pathology

Gilberto Valdez earned a B.S. in Biology from CSU Bakersfield in 2010. Gilberto is currently a Ph.D. student in Dr. Greg Douhan's Lab in the Department of Plant Pathology at UC Riverside, where his first paper has been accepted for publication. As an undergraduate, Gilberto attended an REU at UC Riverside in 2009, under the guidance of Dr. Douhan. A true CSU-LSAMP success, Gilberto started in the Mathematics Bridge program in 2006 and his love for field work took him from the study of shrubs at the outskirts of CSU Bakersfield to the study of plants at Mojave Desert and Santa Monica Mountains.





#### AILEEN ESPINOZA

San Jose State University, B.S. Biology, 2011 University of California, Davis, Ph.D. Student, Immunology

Aileen Espinoza transferred to San Jose State University from San Jose City College. Because of her strong transfer record, she was awarded a CSU-LSAMP Community College Transfer Student Merit Award. She has spent over 2 years conducting research in Dr. Elaine Collins' lab first as a trainee in the MARC Program and, subsequently, in the NIH RISE Program. She has cloned different variants of the human vitamin D receptor into bacterial plasmids order to analyze the different binding properties of the receptors to vitamin D. In Summer 2010 she was able to do immunology research at the University of California, San Diego. She worked on restoring type I interferon (an antiviral agent) production in plasmacytoid dendritic cells, during chronic and persistent viral infections. Aileen graduated in May of 2011 and entered the doctoral program in Immunology at UC Davis in Fall 2011.

#### TUYEN NGOC TRAN

California State University, Long Beach, Undergraduate Student, Biochemistry

**Tuyen Ngoc Tran** will earn his B.S. in Biochemistry from CSU Long Beach in Fall 2012. Tuyen is currently conducting research on the potential role of oxidative stress in modulating cholesterol homeostasis via Apolipoprotein E, under the direction of Dr. Vasanthy Narayanaswami. He has presented his research at conferences, both as poster and oral presentations. Among his numerous awards, Tuyen has been awarded the Western States Affiliate Undergraduate Student Research Fellowship of the American Heart Association, a Women & Philanthropy Undergraduate Research and Creative Activity Scholarship, and a Marsi Scholarship from the Department of Chemistry and Biochemistry. He will continue as a CSU-LSAMP Scholar in 2011-2012, and plans to apply to graduate school for biochemistry, biomedical science, or cancer immunology programs.

## **WALLACE WONG**California State University, San Marcos, B.S., Biology, 2011



Wallace Wong studied at Mira Costa Community College and was awarded an NIGMS Bridges to the Baccalaureate Fellowship. In Fall 2007, Wallace transferred to CSU San Marcos and started his career in biological sciences. Wallace was a 2008-2009 CSU-LSAMP Scholar. He soon joined the research laboratory of Dr. Sajith Jayasinghe working with the structural analysis of both AgFa and Crp proteins using techniques in Biophysics. In 2009-2010, Wallace was awarded the Research Initiative for Scientific Enhancement (RISE) Fellowship. Wallace was awarded entrance into the 2010-2011 California Institute for Regenerative Medicine Bridges to the Stem Cell Research Internship Program at CSU San Marcos. Wallace graduated from CSU San Marcos with a B.S. in Biology, May 2011, and will be applying to graduate school in Fall 2011.

#### TERESA RAMIREZ

California State University, Dominguez Hills, B.S. Biology, 2004 Brown University, Ph.D. Student, Molecular Pharmacology and Physiology



**Teresa Ramirez** graduated from CSU Dominguez Hills with a B.S. in Biology in June 2004. Upon graduation, she was a post-baccalaureate student at the National Cancer Institute in Frederick MD. She then entered the Ph.D. program in Molecular Pharmacology and Physiology at Brown University. She is currently working in the laboratory of Dr. Suzanne de la Monte, investigating the role of brain insulin deficiency and insulin resistance in neurodegeneration. During her first year, she received the Ford Diversity Pre-doctoral Fellowship which she deferred for two years when she received an NIH NIAAA Diversity Supplemental Fellowship. She has presented her work at the Brown University Pathobiology Retreat (August 2010), and was awarded a FASEB Travel Award to attend the Experimental Biology conference in Washington D.C. (April 2011). She has also served as a peer mentor for high school students and undergraduates as part of the FASEB MARC Professional Development program.



#### AMELIA YZAGUIRRE

California State University, Fullerton, B.S. Physics/Math, 2010 University of Toronto, Canada, Ph.D. Student, Mathematics

Amelia Yzaguirre is currently a graduate student in the Ph.D. program in Mathematics at the University of Toronto, Canada and is a recipient of a National Science Foundation Graduate Research Fellowship. As a CSU-LSAMP student at CSU Fullerton, Amelia did research in relativity and cosmology with Dr. Stephen Goode and also spent three summers doing research under REU programs. Along with her extensive undergraduate research experience, Amelia engaged in many different CSU-LSAMP activities, such as attending the CSUF-sponsored GRE prep course in January 2009, and the California Forum for Diversity in Graduate Education at California State University, San Marcos on April 25, 2009. She also participated in International Travel in Summer 2010, visiting several graduate research programs in Canada.

#### JUSTIN LARSON

California State University, Northridge, B.S. Mechanical Engineering, 2011 California State University, Northridge, M.S. Student, Mechanical Engineering

Justin Larson, a Mechanical Engineering major, has been very busy since being admitted to CSU Northridge in 2005. Not only has he been active in CSU-LSAMP, but he has been an integral member of two winning teams. His idea "Implementing Human Electricity Generation" was selected as one of the best ideas from the CDIO Academy 2011 Idea Contest. As such, he was invited to the CDIO Academy 2011 Rethink City event at DTU in Copenhagen, Denmark. In June, 2011 he joined 100 other CDIO students from all over the world to refine and develop their ideas for rethinking megacities. Justin was also on the CSUN-Mechanical Engineering Human Powered Vehicle (HPV) team, which, on May 14<sup>th</sup>, 2011, won first place in the design event and second place overall in the speed class at the Human Powered Vehicle Western Area Competition in Bozeman, Montana. The teams' excellent performance is the highest that a CSUN team has ever placed in this national competition. Justin graduated in 2011 and was admitted into the M.S. program in Mechanical Engineering at CSU Northridge, where he is a CSU-LSAMP Bridge to the Doctorate Cohort IX Fellow.



#### DIANA LOZANO

San Diego State University, B.S. Electrical Engineering, 2007 University of Houston, Texas, Ph.D. Student, Physiological Optics

**Diana Lozano** is currently a fifth year Ph.D. student in Physiological Optics at the University of Houston, Texas. Diana joined CSU-LSAMP through the CSU-LSAMP Pathways Through Calculus Program the summer before her freshman year. Diana continued to be an active participant in CSU-LSAMP and presented her research at the 2004 ABRCRMS Conference. In addition to her undergraduate research, Diana was the SDSU SACNAS Chapter Vice President. She graduated from SDSU in 2007 with a B.S. in Electrical Engineering. Diana was a recipient of the Fight For Sight Grant in 2011.

#### MICHAEL PERALTA

California State Polytechnic University, Pomona, B.S. Chemistry, 2010 Columbia University, Ph.D. Student, Chemistry

**Michael Peralta** transferred to Cal Poly Pomona from Cerritos Junior College. Michael credits his CSU-LSAMP funded research experiences at Cal Poly Pomona in computational biophysics with Dr. Shantanu Sharma, and small-molecule organic chemistry with Dr. Michael Pirrung, as his motivation for pursuing a Ph.D. He is now a student at Columbia University, pursuing a Ph.D. in Chemistry.





#### SRIKANTH GUTTIKONDA

California State University, East Bay Undergraduate Student, Physics

**Srikanth Guttikonda** is a Physics major CSU East Bay. He has been working with Dr. Derek Kimball on atomic physics research for a number of years and has presented at numerous conferences and has coauthored two papers with Dr. Kimball. Srikanth helped set up the newly acquired (NSF-funded MRI grant) femtosecond laser-based frequency comb (shown above) in a spectra from a diffraction grating of the laser light produced. Srikanth hopes to attend graduate school to obtain a doctorate in Physics after he graduates from CSU East Bay.

#### NADINE RODRIGUEZ

California State University, Los Angeles, B.S. Microbiology, 2007
California State University, Los Angeles, M.S. Biology, 2009
University of California, Santa Barbara, Ph.D. Student, Molecular, Cellular, and Developmental Biology

Nadine Rodriguez participated in CSU-LSAMP at Cal State LA through activities that included summer bridge and AY workshops in chemistry and physics. Nadine went on to the M.S. program in Biology at Cal State LA, where she was a recipient of the CSU-LSAMP Bridge to the Doctorate Fellowship (Cohort V). Nadine is currently a second-year Ph.D. student in Molecular, Cellular and Developmental Biology (MCDB) at UCSB. Her research (under the direction of Dr. Jacob Israelachvili in Chemical Engineering and Dr. Herbert Waite in MCDB) aims to better understand the biological, behavioral, and biophysical properties of the marine mussel in order to enhance the design of a synthetic polymer for the production of an underwater adhesive for a variety of applications in dentistry including surgical implants. In addition, she is currently writing a book chapter section on wet adhesion that addresses a discussion of marine surfaces, attachment process of the marine mussel, architecture of the byssus, and a compilation of known proteins and their location in the adhesive plaque. In addition to her Ph.D. studies, Nadine is a participant in the UCSB Certificate in College and University Teaching (C-CUT), a program for doctoral students who plan to teach at the university level. Her goal upon receiving her Ph.D. is to become a university professor with her own research lab where she can mentor students of diverse backgrounds.





#### HENRY UREH

California Polytechnic State University, San Luis Obispo Graduating Senior, Electrical Engineering

**Henry Ureh** is an Electrical Engineering major with a concentration in power systems and power electronics at Cal Poly SLO. He has participated in a variety of Cal Poly LSAMP activities, including research, conferences, and other graduate preparedness activities. Cal Poly's Educational Opportunity Program honored Henry with the Bright Light Award. Henry will graduate in 2011 from Cal Poly with a B.S. and M.S. (4+1 program) in Electrical Engineering.

#### **CHRISTOPHER ROCHESTER**

San Jose State University, B.S. Chemical Engineering, 2008 University of California, Davis, Ph.D. Student, Chemical Engineering

Christopher Rochester graduated from San Jose State with a B.S. in Chemical Engineering in 2008. While at SJSU, Chris was a CSU-LSAMP student and an AEW facilitator. During his final two years at SJSU, he was an NIH MARC student and did summer research at UC San Diego. Chris is in his fourth year in the Chemical Engineering doctoral program at UC Davis. His research project is in the area of polymer photovoltaics. These devices use organic materials such as conjugated polymers and fullerenes as active layers that can absorb light and generate electricity. He recently submitted a paper for publication and has two more in preparation. He expects to complete his Ph.D. in May 2013.



#### **JEFFREY JACKSON**

California State University, Fresno, B.S. Chemistry, 2010 University of California, Santa Barbara, Ph.D. Student, Organic Chemistry



Jeffrey (Jeff) Jackson is embarking on his first year of graduate studies in the Ph.D. program in Organic Chemistry at UCSB. His research interests include working on the total synthesis of a natural product. As an undergraduate Jeff actively participated in program activities including a Research Internship under the guidance of Dr. Santanu Maitra. Jeff was also a CSULSAMP Student Scholar, which furthered his undergraduate research with Dr. Maitra; and he was selected to participate in the 241<sup>st</sup> ACS National Meeting and Exposition. He received a Summer Research Fellowship from the University of California, Santa Barbara Chemistry Department, and is currently working through a rotation with Dr. Tom Pettus and Dr. Steven Jackson with a research focus on the total synthesis of Tetrapetalone A. Jeff will also be completing a rotation with Dr. Armen Zakarian and is looking forward to his research and academics as a doctoral student.

#### ADAN ROMERO

California State University, Monterey Bay, B.S. Biology, 2010 University of California, Berkeley, M.P.H. Student



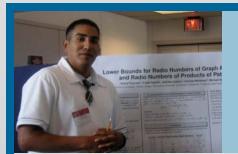
As a Biology major at CSU Monterey Bay, **Adan Romero** reported "I want to do research that will make people's lives better. I want to help patients." Adan started on that path by conducting research with UC San Francisco's Musculoskeletal Quantitative Imaging Research group under Dr. Sharmila Majumdar. The objective of this research was to help improve early diagnostic tools such as MRI for the musculoskeletal disease, Osteoarthritis. Adan continued to explore the medical research field through a summer research program at the Massachusetts Institute of Technology (MIT) in 2008. Adan entered the Master's of Public Health program at the University of California, Berkeley in Fall 2011.

#### TERESA MUNOZ

California State University, Chico, B.S. Biological Sciences, 2002 University of California, San Diego School of Medicine, M.D., 2007

Teresa Munoz entered CSU-LSAMP by participating in the Chico State Summer Calculus Boot Camp in 1998 and became the biology facilitator in 1999. She earned the Rawlins Scholarship in May 2000 and the Floyd English Scholarship for 2001-02 and made the Dean's list almost every semester. Teresa graduated with a B.S. in Biological Sciences in 2002 and went to the UC San Diego School of Medicine, where she earned her medical degree. She is now completing her residency at the UCSF-Fresno OBGYN program. She was chosen as administrative chief resident in 2011 and will finish her specialty training in Obstetrics and Gynecology in June 2011. Quoting Teresa, "I can honestly say that programs like LSAMP helped me and inspired me to become a doctor, and I am very thankful for having been given the opportunity to participate. Today realizing how important it is to mentor our youth, I too have taken on a role of mentor. Through the Latino Center for Medical Education and Research I have mentored high school students."





#### MICHAEL NAVA

California State University, Channel Islands, B.S. Mathematics, 2009 University of California, Santa Barbara, Ph.D. Student, Mathematics

**Michael Nava** began his studies at a community college, and transferred to CSU Channel Islands in Spring 2007 with the goal of completing a 4-year degree and becoming a high school teacher. Mike was "discovered" in a Calculus III class and invited to join a Research Experience for Undergraduates, working on research in graph labeling with Dr. Cindy Wyels. The following fall, Mike was invited to join CSU-LSAMP as well as a research group in texture analysis led by Dr. Kathryn Leonard. Mike participated actively in both CSU-LSAMP and the research group for his last two undergraduate years. CSU-LSAMP also helped him land a Summer 2008 research experience guided by Dr. S. Rao Jammalamadka at the University of California, Santa Barbara. At least two research papers with Mike as a co-author have been submitted for publication (in graph theory and in texture analysis). Mike's research experience, and his CSU-LSAMP activities (conference attendance, professional development workshops, etc.) led to raising his educational goals significantly. He obtained a full fellowship to pursue a Ph.D. in Statistics at UC Santa Barbara, where he has successfully completed his second year of studies and is preparing for his qualifying exams.

#### **AIREK MATHEWS**

California State Polytechnic University, Pomona, B.S. Chemistry, 2008 University of California, Los Angeles, Ph.D. Student, Environmental Health Science

Airek Mathews graduated from Cal Poly Pomona in 2008 with a B.S. in Chemistry. As a CSU-LSAMP student, Airek facilitated AEWs in chemistry and carried out research. He then entered an M.P.H. program in Environmental Health Science at the University of California, Los Angeles. He has since advanced to a Ph.D. program in the same department. The Southern California American Industrial Hygiene Association (SCAIHA) honors several individuals annually for Academics, Leadership, and Technical Achievements in the field of Industrial Hygiene. In 2009, Airek received the Graduate Scholarship Award for outstanding graduate student studying industrial hygiene.

#### MICHELLE PALACIOS

University of California, Los Angeles, B.S. Microbiology, 2008 California State University, Los Angeles, M.S. Biology, 2010 University of North Carolina, Chapel Hill, Ph.D. Student, Microbiology and Immunology



Michelle Palacios began her scientific career as an undergraduate at UCLA in the Microbiology, Immunology, and Molecular Genetics Department. Through UC's LSAMP, Michelle became a fellow and scholar in the UCLA Center for Academic and Research Excellence program. Her experiences inspired her to pursue graduate education in research. Michelle was awarded the CSU-LSAMP Bridge to the Doctorate (Cohort VI) Fellowship at Cal State LA. Her Master's thesis work with Dr. Nancy L. McQueen focused on the interaction between viral proteins and host cell proteins. Michelle was accepted into the Ph.D. program in Microbiology and Immunology at the University of North Carolina, Chapel Hill, where she was awarded an IMSD fellowship and joined the doctoral program working with Dr. Virginia L. Miller on *Klebsiella pneumoniae* protein secretion and regulation.

#### ELAINE MANZANILLA

California State University, Sacramento, B.S. Biological Sciences, 2008 University of New Mexico, M.S. Student, Biomedical Sciences

Elaine Manzanilla entered the CSU-LSAMP program at California State University, Sacramento as a transfer student in 2003. As an undergraduate, Elaine participated in the CSU-LSAMP Academic Year Research activity and the CSU-LSAMP Scholars program. Her undergraduate research focused on expression of the plasma membrane ion pump LHA2 during tomato root colonization by endomycorrhizal fungi. Elaine graduated with a B.S. in Biological Sciences in 2008, and entered the graduate program in Biomedical Sciences at the University of New Mexico, where she was a participant in the UNM-LSAMP Bridge to the Doctorate activity. Elaine's research at UNM focuses on the proteomics of quiescent and non-quiescent cell differentiation in yeast stationary-phase cultures.





#### KRISTIN SPAULDING

California State Polytechnic University, Pomona, B.S. Chemistry, 2010 California State University, Pomona, M.S. Student, Chemistry

**Kristin Spaulding** graduated from Cal Poly Pomona in 2010 with a B.S. in Chemistry. She was an AEW facilitator for organic chemistry and was awarded a CSU-LSAMP Scholar award to carry out a research project in organic chemistry with Dr. Francis Flores. Kristin also had the privilege of going to a National American Chemical Society Conference in March, 2010 to present a poster on her research. She entered the graduate program in Chemistry at Cal Poly Pomona in Fall 2010.

#### MIGUEL GARCIA

California State University, Fresno, B.S. Biology, 2010 City University of New York, Hunter College, M.S. Student, Molecular, Cellular and Developmental Biology



Miguel Garcia is currently in his second year in the Molecular, Cellular and Developmental Biology Master's program at City University of New York, Hunter College. His research focuses on a Dictyostelium discoideum homologue of PKC and its role in cytoskeletal regulation. As an undergraduate, Miguel was actively involved in CSU-LSAMP activities, including participation in a CSU-LSAMP Research Internship and serving as a Peer Mentor. Additionally, Miguel was a CSU-LSAMP Scholar. Miguel also was intensely involved in organizations such as the Tri-Beat Biology Club and a founding member for the CSU Fresno's Consortium for Evolutionary Studies. With CSU-LSAMP and student organizations, Miguel was an advocate for science and higher education to fellow students and the community. As a graduate student, Miguel continues to provide advice to undergraduates by speaking at LSAMP meetings that are intended to encourage students to consider graduate school. He has also gained international research experience in The Netherlands and was accepted to the CUNY LSAMP Bridge to Doctorate Program. Miguel is in the process of preparing applications to Ph.D. programs, which he plans to start submitting in Fall 2012.

#### **CASEY SANCHEZ**

California State University, Fullerton, B.S. Physics/Math, 2011 University of California, San Diego, Ph.D. Student, Materials Science

Casey Sanchez entered the Ph.D. program at UCSD in Fall 2011 after completing a double major in Math and Physics at CSU Fullerton. As an undergraduate, Casey was supported by CSU-LSAMP to conduct research with Dr. Mike Loverude on projects connected with physics education research, developing student surveys, and class tasks to probe student conceptual understanding, as well as resources for instructors. Casey spent Summer of 2009 in Madison, WI working at the Synchrotron Radiation Center in an REU internship involving materials science and semimetals, and Summer of 2010 at MIT working in their Materials Processing Center. Casey served as a supplemental-instruction (SI) tutor for the math department, and helped the physics department launch the CSU-LSAMP funded SI program for the life science introductory physics courses. Casey participated in several CSU-LSAMP activities including the GRE prep course, the California Forum for Diversity in Graduate Education and Berkeley Edge.



#### **JEREMY BECKFORD**

San Jose State University, B.S. Chemistry, 2011 City College of New York, Ph.D. Student, Chemistry

Jeremy Beckford was a CSU-LSAMP student and an AEW facilitator for General Chemistry at SJSU. In 2008 he secured a position in the NIH RISE Program and performed research under the guidance of Dr. Marc d'Alarcao. His project was to synthesize flavonoid derivatives that could be tested on cancer cells to see what effect they would have. He also performed enzyme assays to characterize the inhibition of several flavonoids on caspases 1, 3, and 7 in a collaboration with Dr. Brandon White in Biological Sciences. Jeremy graduated in May, 2011 and entered the Ph.D. Program in Chemistry at City College of New York in Fall 2011. He was selected as a participant in the NIH Academy for Future Science Faculty.



#### KHAVONG PHA

California State University, Fresno, B.S. Biology, 2009 University of California, Davis, Ph.D. Student, Biology



Khavong Pha is currently a second year graduate student in the Ph.D. program in Biology at the University of California, Davis. Khavong, is with the Biochemistry, Molecular, Cell and Developmental Graduate Group working under the direction of faculty mentor Dr. Lorena Navarro. Khavong's research area entails studying the detailed activation mechanism of a bacterial virulence protein. As an undergraduate, Khavong was actively involved in biology as a CSU-SAMP Research Intern and served as a Facilitator for Academic Excellence Workshops in biology and organic chemistry. Khavong served on student panels, where he shared is experience in research and encouraged lower division students to consider research. Khavong is currently being supported by the Eugene Cota-Robles Fellowship.



#### AIDEE (GONZALEZ) DUARTE

University of California, Santa Barbara, B.S. Chemistry, 2005 California State University, Los Angeles, M.S. Chemistry, 2007 University of California, Santa Barbara, Ph.D. Student, Materials Chemistry

Aidee Duarte is currently a Ph.D. candidate completing her fourth year in Materials Chemistry at the University of California, Santa Barbara. As an undergraduate, she participated in CAMP (the UC-LSAMP Alliance). She completed her Master's thesis under the guidance of Dr. Krishna Foster at Cal State LA, with the support of a CSU-LSAMP Bridge to the Doctorate (Cohort II) Fellowship. Her thesis resulted in a publication in the *Journal of Chromatography*, an award for best oral presentation at the national SACNAS conference (2005), and an Eli Lilly/ American Chemical Society WCC travel award (2006). Her dissertation research conducted under the supervision of Professor Guillermo C. Bazan is on the synthesis and characterization of novel conjugated polyelectrolytes and oligoelectrolytes. She is first author on two articles on this work published in the *Journal of the American Chemical Society* and in *Chemical Materials*. As a Ph.D. student she has received the NRC Ford Foundation Diversity Fellowship (2008 – 2011), the Alliance for Graduate Education and the Professoriate NSF Top-Up Fellowship (2007), and a travel grant (2010) from the same organizations.

#### MAX VELADO

California State University, Bakersfield, B.S. Computer Science, 2009 San Diego State University, M.S. Student, Statistics

Max Velado earned his B.S. in Computer Science from CSU Bakersfield in 2009. Max is currently finishing his Master's in Statistics at San Diego State University. He presented the paper "Probabilistic Assessment of Cloud Fraction from Bayesian Blending: A Test for ARSCL and TSI Observations" during the Fourth Annual Student Research Symposium at San Diego State. His undergraduate research area focused on finding ways to combat attacks on digital watermarking, under the supervision of Drs. Sam Behseta and Charles Lam. In 2008, Max participated in an REU at UC Santa Cruz on the project "Color Targets: A wayfinding system for the visually impaired" under the guidance of Roberto Manduchi. In addition to his extensive undergraduate research activities, Max served as a facilitator for CSU-LSAMP Academic Excellence Workshops for mathematics and computer science.

#### KHOMTHORN PHROMYOTHI CUNVONG

California State University, Long Beach, B.S. Biology, 2010 Western University of Health Sciences, M.S. Student, Medical Sciences

Khomthorn (Mick) Cunvong earned a B.S. in Biology, with a minor in Chemistry from CSU Long Beach in Spring 2010. As an undergraduate, Mick was awarded the Provost's Stipend Award, and the Lakewood Regional Pillar Award. He conducted research on determination of protein-ligand binding constants of human serum albumin with Warfarin, Ibuprofen, Phenylbutazone, and Heme, using differential scanning Calorimetry. He entered Western University of Health Sciences in Fall 2011 in the M.S in Medical Sciences program.



#### MARIBEL MUNOZ

California State University, Chico, B.S. Biology, 2000 University of California, Los Angeles School of Medicine, M.D., 2004

Maribel Munoz entered CSU-LSAMP as a participant in the CSU Chico Summer Calculus Boot Camp in 1997. She earned a B.S. in Biology with a minor in Chemistry in 2000. Maribel was accepted into the UCLA School of Medicine and graduated in 2004. She completed her residency training in Internal Medicine in the UCLA San Fernando Valley Internal Medicine Residency Program at Olive View-UCLA Medical Center. Upon graduating, she accepted a full time position in the Department of Primary Care and Community Medicine and became an Assistant Clinical Professor at Olive View-UCLA Medical Center. Currently she provides primary care at the San Fernando Health Center. Dr. Munoz also provides urgent care services and attends the inpatient wards at Olive View-UCLA Medical Center. She teaches and supervises medical students, interns, residents, and nurse practitioners at various clinics. She's also the Clinical Coordinator of a grant developing a TeleDerm program to allow clinicians to present dermatological cases, histories, and images.



#### PAMELA ROBLES

California State University, San Bernardino, B.A. Mathematics, 2008 California State University, Long Beach, M.S. Student, Mathematics

**Pamela Robles** attended CSU San Bernardino from Fall 2005 to Spring 2008, where she majored in Mathematics. She was a CSU-LSAMP Scholar during 2007-08, and conducted research under the supervision of Dr. Zahid Hasan in the Mathematics department. Pamela graduated with a B.A. in Mathematics in Spring 2008. She taught at Serrano High School in Phelan, CA during 2008-2009. Sarah entered the Master's program in Mathematics at CSU Fullerton in Fall 2009.

#### CESAR CHAVEZ

California State University, Sacramento, B.S. Computer Science, 2011

**Cesar Chavez** joined CSU Sacramento in Fall 2006, with total clarity about his interest in a career in computer science. While a student at CSU Sacramento, he completed two summer internships with Google. In part because of his interest in writing computer games with a major Japanese company, he learned to speak Japanese, spent one summer in Tokyo, minored in Japanese, and became president of the Sacramento State Japan Club. Cesar graduated *summa cum laude*, and was given the Dean's Award, as the outstanding graduate in the College of Engineering and Computer Science for 2011. He began working as an intern in the Japan Exchange and Teaching program in Japan starting in July, 2011.



#### ADELITA ROA

California State University, Northridge, Undergraduate Student, Mechanical Engineering

**Adelita Roa,** a Mechanical Engineering major, has been a CSU-LSAMP student at CSU Northridge since 2008. She is a 2010-2011 CSU-LSAMP Scholar and plans to go to graduate school in Fall 2013. Adelita holds a position on the ASME Executive Board and participated as a team member in the ASME RC BAJA Car competition this April 15<sup>th</sup>-16<sup>th</sup> at the University of Nevada, Las Vegas. Adelita received a Hispanic Engineer National Achievement Awards Conference Scholarship in 2010.



#### MAURA EVELYN PALACIOS

California State University, Long Beach, B.S. Marine Biology & Zoology, 2007 California State University, Los Angeles, M.S. Biology, 2009 Texas A&M University, Ph.D. Student, Wildlife and Fisheries Sciences

Maura Palacios is a second-year Ph.D. student in Wildlife and Fisheries Sciences at Texas A&M University in the research lab of Dr. Mariana Mateos. Maura's research is focused on the evolution and conservation of Poeciliid fishes, and is supported by a Graduate Diversity Fellowship from the Office of Graduate Studies & Wildlife and Fisheries Sciences Department and a Sloan Minority Ph.D. fellowship. She recently co-authored a research paper in the prestigious journal, *Evolution*. Maura completed her M.S. in Biology with an emphasis in Marine Biology under the guidance of Dr. Elizabeth Torres at Cal State LA. Through a two-year fellowship from the CSU-LSAMP Bridge to the Doctorate Program (cohort V) she studied the phylogeographic sequencing analysis of five different populations of ostracodes. In Summer 2008, the Banff International Research Station, affiliated with the University of British Columbia in Vancouver, BC, sponsored some of the travel costs in conjunction with the CEA-CREST program for Maura to conduct a research project with Dr. Carlos Robles on the influence of varying salinity on spatial patterns of larval settlement of the mussels *Mytilus californianus* & *Mytilus trossulus* in Barkley Sound, British Columbia. Maura's long-term goal after obtaining her Ph.D. by 2014 is either a university professorship or government position in Wildlife and Fisheries or combination of both.



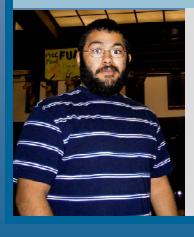
#### **JORGE CONTRERAS**

California State University, Dominguez Hills, B.S. 2010, Biology University of California, Los Angeles, Ph.D. Student, Cell and Molecular Pathology

**Jorge Contreras** graduated from CSU Dominguez Hills with a B.S. in Biology in 2010. He participated in research with Professor Helen Chun, looking at the effects of ATM-dependent apoptosis in response to radiation, and in summer research at UCLA with Professor Alvaro Sagasti, studying axon-axon recognition in zebrafish. Jorge was accepted into the ACCESS program at UCLA in 2010, and has completed the first year of his Ph.D, in the Department of Pathology.

#### FRANCISCO BELTRAN

California State University, Bakersfield, B.S. Mathematics, 2007 University of California, Santa Cruz, Ph.D. Student, Applied Mathematics



Francisco Beltran earned a B.S. in Mathematics from CSU Bakersfield in 2007. As an undergraduate, Francisco was a CSU-LSAMP Scholar and worked on statistical modeling of valley fever data under the supervision of Dr. Sam Behseta. In addition, he served as a facilitator for Academic Excellence Workshops for mathematics. Francisco is currently a Ph.D. student in Applied Mathematics and Statistics at UC Santa Cruz. He is working with Dr. Bruno Sansó on a project sponsored by NOAA, in collaboration with the Southwest Fisheries Science Center, to produce climate indexes and joint projections of the North Pacific sea surface temperature from different global climate models.

## **KEVIN JOHNSON**

California State University, Monterey Bay, Undergraduate Student, Biology Major



Biology major, **Kevin Johnson**, transferred to CSU Monterey Bay in 2009, where he was awarded the 2010 CSU-LSAMP Community College Transfer Student Merit Award. Shortly thereafter, Kevin began working in Dr. Aparna Sreenivasan's Molecular Ecology Lab and by the summer of 2010, he was fully engaged in undergraduate research. Kevin presented his research at a number of research conferences, including the American Association for the Advancement of Science (AAAS)/NSF Emerging Researchers National (ERN) Conference in STEM, where he won first place for his poster in the Ecology, Environmental, and Earth Sciences discipline. Kevin also presented his work at the California State University 25<sup>th</sup> Annual CSU Student Research Competition, where he won second place in the Biological and Agricultural Sciences category. Kevin was recently named a 2010-11 CSU-LSAMP Student Scholar and will put those funds to good use when he applies to Ph.D. programs in Molecular Ecology in Fall 2012.

## JORGE SANCHEZ

San Jose State University, Undergraduate Student, Chemistry

Jorge Sanchez started out at San Jose State University as a Computer Engineering major, but became interested in chemistry and changed his major. Jorge participated in many of the CSU-LSAMP activities at SJSU including the summer program for pre-calculus. A little over a year ago he secured a research position funded by the RISE Program. He is doing research with Dr. Marc d'Alarcao synthesizing inositol glycols and investigating their biological activity in cancer cells. He wants to continue to a Ph.D. in Pharmacology and a career developing new drugs. Jorge graduates in May of 2012.



#### MICHAEL OKORO

California State University, San Bernardino, B.S. Chemistry, 2010 University of California, Irvine, Ph.D. Student, Chemistry

**Michael Okoro** transferred to CSU San Bernardino from San Jose City College in Fall 2007. He joined the CSU-LSAMP program and began his search for a suitable doctoral program. Michael obtained an Alliance for Graduate Education and the Professoriate Summer Research Fellowship 2008. He conducted research under the supervision of Dr. Richard Chamberlin on the Synthesis of a Biarylazacy-clooctynone as a precursor to tags for protein cross-linking. Michael was a CSU-LSAMP Scholar during the 2008-09 academic year. He graduated from CSU San Bernardino with a B.S. in Chemistry in Spring 2010 and entered the doctoral program in Chemistry at UC Irvine in Fall 2010.

## **DAVID GOMEZ**California State University, San Bernardino, Undergraduate Student, Mathematics



**David Gomez** is an undergraduate at CSU San Bernardino with an outstanding mathematical talent. He was a CSU-LSAMP Scholar for the 2010-11 academic year. In summer 2011, David conducted research under the supervision of Dr. Min-Lin Lo in the area of graph theory. He plans to graduate in Spring 2012 with a B.S. in Mathematics, after which he will pursue graduate school for entry in Fall 2012.

#### **SHARON EPPS**

San Diego State University, B.S. Biology, 2007 Texas A&M University, Ph.D. Student, Toxicology

**Sharon Epps** began her participation with the CSU-LSAMP program in Summer 2002, while still a community college student. Sharon transferred to SDSU in Fall 2003 and participated in many CSU-LSAMP sponsored activities. In 2004, Sharon had the opportunity to conduct research at the University of Cape Coast in Ghana characterizing *Momordica charantia*, a plant used in the treatment of diabetes mellitus. Sharon was selected for the CSU-LSAMP Scholars Program in 2005. Sharon is currently a 5<sup>th</sup> year Ph.D. student in Toxicology at Texas A&M.



#### KEVYN GARDNER

California State Polytechnic University, Pomona, B.S. Chemistry, 2010 University of Iowa, Ph.D. Student, Chemistry

**Kevyn Gardner** graduated with a B.S. in Chemistry from Cal Poly Pomona in 2010. Kevyn participated in CSU-LSAMP sponsored AEW's and in various LSAMP activities including the undergraduate research experience where she became interested in polymer chemistry. She entered the Ph.D. program at the University of Iowa in Fall 2011.

#### RYAN VALLES

California State Polytechnic University, Pomona, B.S. Mathematics, 2009 California State Polytechnic University, Pomona M.S. Student, Applied Mathematics

**Ryan Valles** was an active member of CSU-LSAMP and a facilitator for AEWs in mathematics. Ryan attended an REU program at Willamette University in the summer of 2008, where he studied graph theory. He also presented his work at the Joint Mathematical Conference in Washington DC in January of 2009. Ryan graduated in 2009 and entered the M.S. program in Applied Math at Cal Poly.



#### MARIA GUTIERREZ

San Diego State University, B.S. Chemistry (Biochemistry), 2011 University of Louisville, Ph.D. Student, Microbiology and Immunology



**Maria Gutierrez** is a recent graduate of the Biochemistry program at San Diego State University. Her undergraduate research involved studying interfacial metal bridging between antibodies and their antigens. Maria entered the Ph.D. program in the Department of Microbiology and Immunology at the University of Louisville in the Fall of 2011.

#### GEORGINA PORTILLO-AGUILAR

California State University, Northridge, B.S. Biology, 2011 California State University, Northridge, M.S. Student, Biology

**Georgina Portillo-Aguilar** entered CSU Northridge as a transfer student in Biology and became a 2007 CSU-LSAMP Community College Transfer Student Merit Awardee. She was very active in CSU-LSAMP activities such as the Summer Research Program, and presented research findings at several professional conferences, including the Genetics Society of America Drosophila Conference. Georgina began her M.S. program in Biology as a CSU-LSAMP Bridge to the Doctorate Fellow (Cohort IX) at CSU Northridge in Fall 2011.

#### **CARLOS IBARRA**

California State University, San Bernardino, B.A. Mathematics, 2005 California State University, Los Angeles, M.S. Mathematics, 2007

Carlos Ibarra graduated from CSU San Bernardino in Spring 2005 with a B.A. in Mathematics. In the summer of 2003, Carlos participated in the CSU San Bernardino REU program in Mathematics and conducted research on graph theory. Specifically, he worked on embedding a complete bipartite graph into a 2xn grid, under the supervision of Dr. Joseph Chavez. Carlos was a CSU-LSAMP Scholar during the 2004-05 academic year. In Fall 2005 he entered the Bridge to the Doctorate program at CSU Los Angeles. He completed his M.S. in Mathematics at CSU Los Angeles in Spring 2007, and is currently employed by the Department of Defense in Corona, California.



#### **MELISSA SOTO**

California State University, San Bernardino, B.A. Mathematics, 2006 Columbia University, Ph.D. Student, Chemistry

**Melissa Soto** transferred to CSU San Bernardino where she earned a B.A. in Mathematics in Spring 2006. As an undergraduate, Melissa did research in mathematics under the supervision of Dr. Yuichiro Kakihara, investigating the Cauchy Inequality and its use in mathematics. Melissa was a CSU-LSAMP Scholar in 2005-06. After working in secondary education, Melissa decided to continue her mathematics career, entering the M.A. program in mathematics at CSUSB. While on her M.A., Melissa was accepted into the Ph.D. program in Mathematics at the University of Iowa in Fall 2010, funded by a Dean's Graduate Fellowship.



# CALIFORNIA STATE UNIVERSITY LOUIS STOKES ALLIANCE FOR MINORITY PARTICIPATION CSU-LSAMP